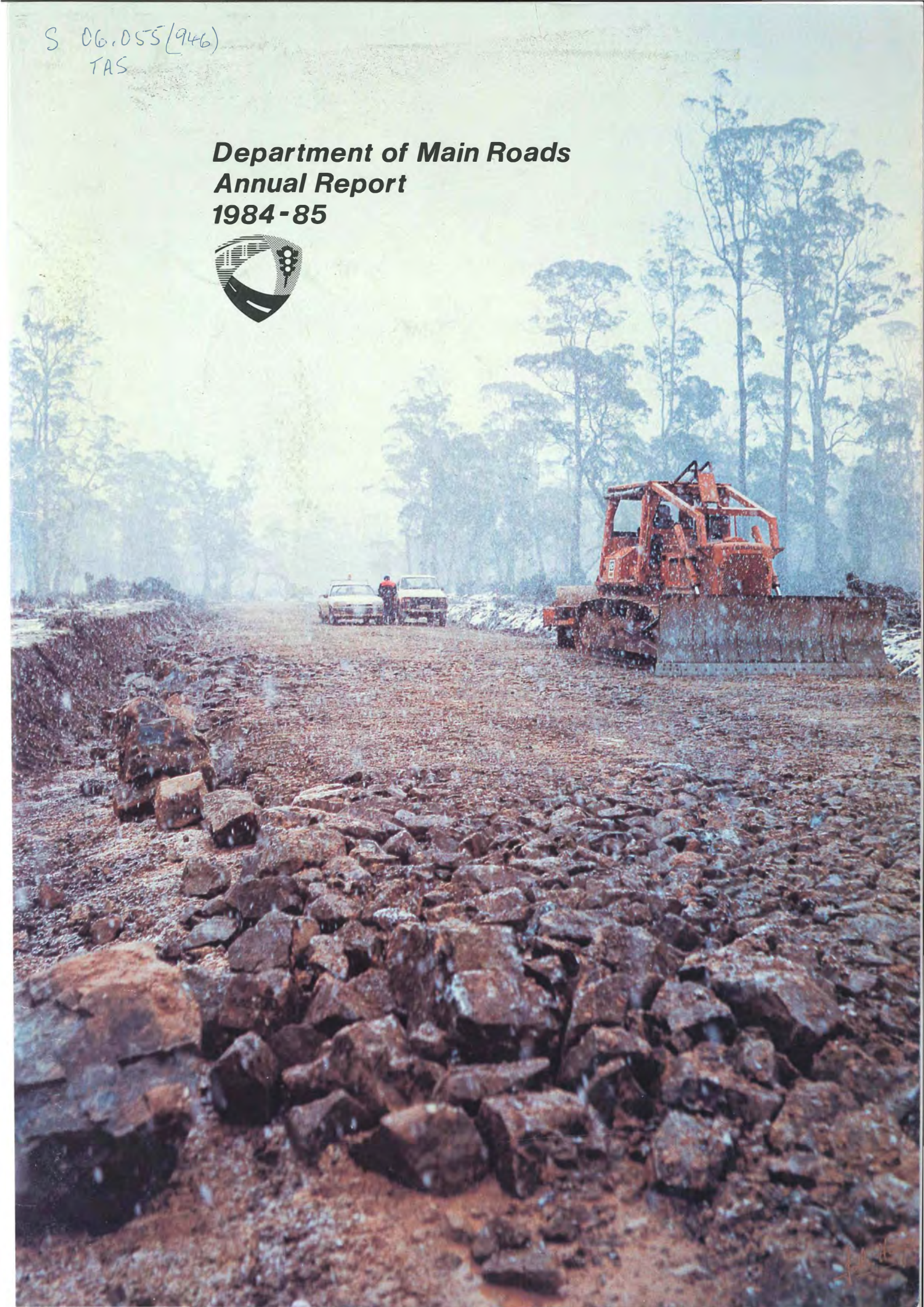
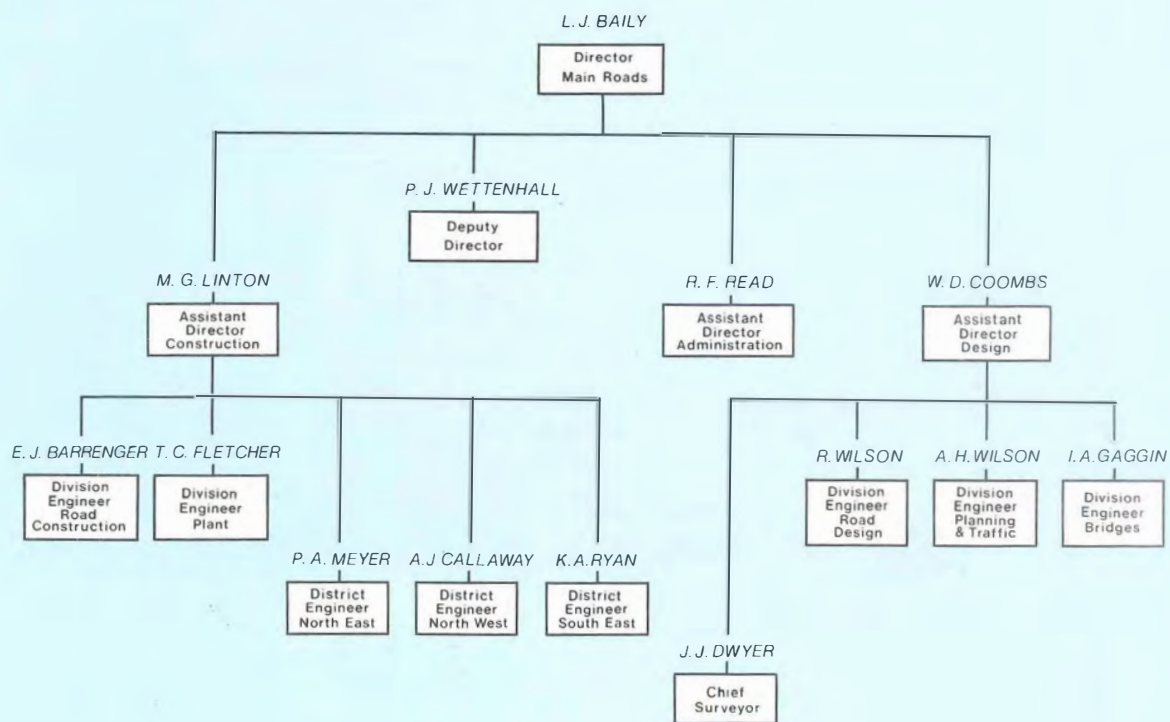


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**Department of Main Roads
Annual Report
1984-85**





PRINCIPAL OFFICERS



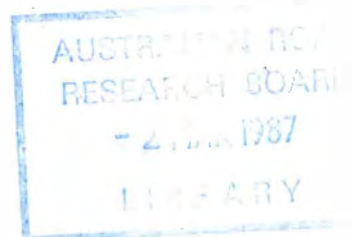
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HIGHLIGHTS FOR THE YEAR

The year 1984-85 created new records for the magnitude of the works program and the expenditure in real terms by the Department. These records were created by a major increase of 209 per cent in real terms in the Loan Fund allocation.

Three major new road projects were commenced as part of the record works program. The projects were:—

- Guildford-Hampshire Link Road.
- Que River-Learys Corner Link Road.
- Falmouth-Chain of Lagoons Link Road.

On the National Highway, the completion of the Oatlands Bypass marked the final stage of the major upgrading of the southern section of the National Highway between Mangalore and Oatlands which was commenced with the inception of the National Roads in 1974.

The first stage of the Launceston Southern Outlet was opened early in 1985 and this significant road development, when completed, will provide a vast improvement for the travelling public.

The record works program has been achieved by a combination of Departmental and private resources. During the planning stages of the projects, Departmental staff have been augmented by private surveyors and consulting engineers' firms. Construction has been carried out by both the Departmental direct labour organisation and private contractors. This approach to the method of implementation of the program has been relatively successful and has enabled the Department to meet its commitments while maintaining a constant level of staff and employees.

The Districts have tendered for all major construction contracts and have achieved a very high success rate of over 60 per cent. Results obtained from completed contracts by the Department, so far, indicate a small overall profit which is considered to be most satisfactory.

Generally the Department has demonstrated an increased efficiency in its operations by the successful completion of the record works program without an increase in staff levels. This better performance is probably due to two factors; the significant involvement in contract works and the increased funding available for the direct labour works.

Forward programs of works required to bring the Classified Road system of the State to a more acceptable standard have been developed. They indicate the need to maintain the higher funding levels for an extended period if improvements of the type now being achieved are to be undertaken to correct the deficiencies identified on the older or unimproved sections of the network within the foreseeable future.

FINANCE

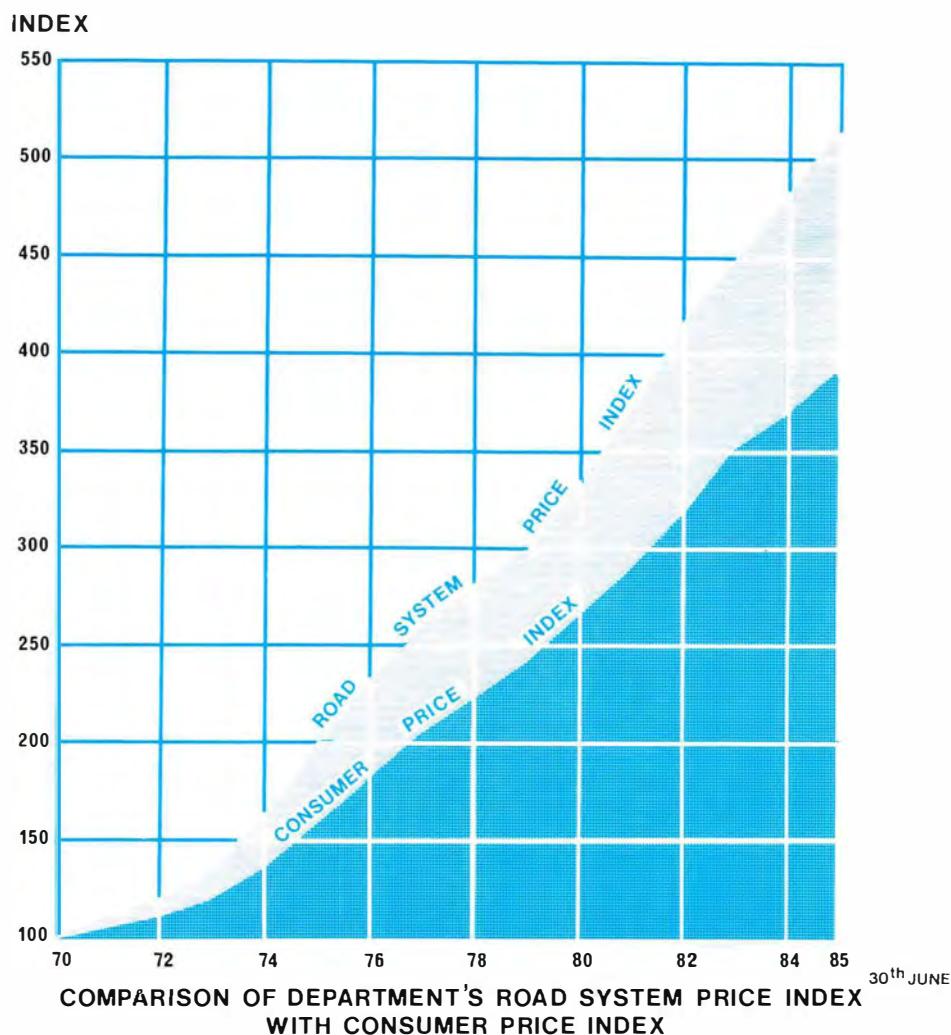
GENERAL

The Department has continued to monitor the rising cost of its operations by the use of a Road System Price Index.

During 1984-85 the Department's index rose at a lower rate than the Consumer Price Index. This is only the fifth time in fifteen years that the rate of increase has been less than the Consumer Price Index. The total increase in the Road System Index over the fifteen years remains greater than the total increase in the Consumer Price Index.

The Road System Price Index rose by 6.4 per cent during 1984-85 while the Consumer Price Index increased by 6.7 per cent. Over the same period the weighted average wage paid to adult males working in the building and construction industry in Tasmania, as reported by the Australian Bureau of Statistics, rose by 4.9 per cent.

The comparison between the index developed by the Department and the Consumer Price Index adjusted to the same base year is set out below. An index produced by averaging the road construction indices of the State Road Authorities in Victoria and South Australia has been included in the table to further illustrate how inflationary pressures have forced costs incurred by road construction authorities to escalate at a higher rate than the Consumer Price Index.



<i>Date 30 June</i>	<i>D.M.R.</i>		<i>AVERAGE VIC/S.A. S.R.A.'S</i>		<i>C.P.I.</i>	
	<i>Index No.</i>	<i>Annual Change</i>	<i>Index No.</i>	<i>Annual Change</i>	<i>Index No.</i>	<i>Annual Change</i>
1970.....	100.0	....	100.0	....	100.0	....
1971.....	110.8	10.8	111.2	11.2	104.6	4.6
1972.....	122.0	10.1	119.9	7.8	111.3	6.4
1973.....	133.8	9.7	135.3	12.8	119.3	7.2
1974.....	162.4	21.4	165.8	22.5	136.8	14.7
1975.....	199.3	22.7	195.3	17.8	159.3	16.4
1976.....	233.6	17.2	226.9	16.2	183.0	14.9
1977.....	263.5	12.8	250.8	10.5	206.8	13.0
1978.....	283.3	7.5	268.1	6.9	224.0	8.3
1979.....	300.6	6.1	288.2	7.5	243.6	8.8
1980.....	337.6	12.3	331.1	14.9	268.3	10.1
1981.....	374.1	10.8	372.5	8.2	292.1	8.9
1982.....	421.9	12.8	422.3	13.4	321.0	9.9
1983.....	451.0	6.9	465.6	10.3	356.3	11.0
1984.....	487.5	8.1	513.0	10.2	370.5	4.0
1985.....	518.6	6.4	533.4	4.0	395.3	6.7

The rate of inflation affecting the operation of the Department of Main Roads for the financial year 1985-86 is estimated to be 8 per cent.

Commonwealth grants available to the Department for road purposes under the Roads Grants Act were indexed by 8.7 per cent for 1981-82, 7.15 per cent for 1982-83, 6.0 per cent for 1983-84, and 6.0 per cent for 1984-85. In 1985-86 the Roads Grants Act will be superseded by the Australian Land Transport (Financial Assistance) Act 1985. As a result of this change the Department should experience a net decrease in Commonwealth funding in both nominal and real terms. This decrease will in part be made up by increases in State funds, but the overall net effect of this change will be to lower the Total amount of funds available to this Department in real terms for the 1985-86 financial year.

The bar chart opposite illustrates the funds received by the Department for roadworks. In each case the funds have been adjusted to June 1985 values by using the Department's Road System Price Index

The sensitivity of State funds to rises in motor taxation rates, and fuel franchise is clearly visible.

In recent years Commonwealth funding under the Roads Grants Act, as amended, and under the Australian Land Transport (Financial Assistance) Act 1985 has declined in real terms. However, the decline has been partly arrested by a once only special grant of \$10 m for Tourist Roads under the Callaghan Scheme in 1982-83 and continuing grants for the Australian Bicentennial Road Development (A.B.R.D.) Program.

The A.B.R.D. Program is funded from a special Commonwealth fuel tax at the rate of two cents per litre in respect of motor spirit and diesel fuel used for home consumption.

To be eligible for A.B.R.D. funds, Tasmania must maintain its expenditure on roads in real terms each year. The Commonwealth Government has proposed a base period and a method of determining a base level of expenditure against which the State's annual expenditure on roads during the period of the A.B.R.D. Program will be compared. The base period proposed is a five year period ending 30 June 1982 and the average of the State's annual expenditure on roads for this period is its base level expenditure. It is also proposed that the Australian Bureau of Statistics' implicit price deflator for private non-dwelling construction, be used to adjust to expenditure figures for different years to enable them to be compared in constant price terms.

COMMONWEALTH GRANTS FOR ROADS

Under the Roads Grants Act 1981 and the Australian Bicentennial Road Development Trust Fund Act 1982 the Commonwealth provided financial assistance to the States for roads in the financial year 1984-85. The total grants to Tasmania were \$49 962 738 made up as follows:—

	<i>Roads Grants Act 1981</i>	<i>A.B.R.D. Act 1982</i>
	\$	\$
National Roads—Construction and Maintenance	16 846 000	4 197 016*
Arterial Roads—Construction	9 672 000	....
Rural Arterial Roads—Construction .....	....	3 816 231
Urban Arterial Roads—Construction .....	....	3 977 000
Local Roads—Construction and Maintenance	9 906 000	1 548 491
	<u>\$36 424 000</u>	<u>\$13 538 738</u>

* For road construction purposes only.

The 1981 Act discontinued the State Contribution (Quota) System.

The Road Grants Act 1981 ceased operation as at the 30 June 1985 and was replaced by the Australian Land Transport (Financial Assistance) Act 1985. Under this Act the following allocation of Road Funds was made in respect of 1985-86:—

	\$
National Roads—Construction and Maintenance	17 600 000
Rural Arterial Roads—Construction and Maintenance	4 200 000
Urban Arterial Roads—Construction and Maintenance	3 700 000
Local Roads—Construction and Maintenance	<u>10 400 000</u>
	<u>\$35 900 000</u>

Under the Australian Bicentennial Road Development Trust Fund Act 1982 Tasmania anticipates receiving approximately \$12 866 000 in 1985-86 made up as follows:—

	\$
National Roads—Construction	4 434 000
Rural Arterial Roads—Construction	2 177 000
Urban Arterial Roads—Construction	3 596 000
Local Roads—Construction	2 659 000
	<u>\$12 866 000</u>

SPECIAL COMMONWEALTH FUNDS

Funds for the construction of the Second Hobart Bridge provided by the Commonwealth amounted to \$847 487 as compared with \$5 523 193 in 1983-84.

ROAD FUNDS FROM STATE RESOURCES

Motor Taxation—receipts amounted to \$17 998 573 as compared with \$17 357 028 in 1983-84, an increase of 3.56 per cent.

Public Vehicle Fees—fees collected during the year amounted to \$170 318 as compared with \$111 028 in 1983-84 an increase of 53.40 per cent.

Petroleum Products Business Franchise Licence Fees—receipts amounted to \$12 211 571 as compared with \$11 902 268 in 1983-84, an increase of 2.60 per cent.

Loan Funds—funds provided to the Department for roads, bridges and associated works, upgrading of fishing ports, jetties and facilities for fishermen and the Launceston Flood Protection Scheme totalled \$18 103 694, an increase of 175.04 per cent as compared with the previous year.

FUNDS PROVIDED BY OTHER DEPARTMENTS AND AUTHORITIES

Payments received by the Department for works and services carried out for other Departments and Authorities amounted to \$1 751 651 as compared with \$1 763 859 in 1983-84. The Department was involved with minor works for the Construction, Education, Forestry, Health, Housing, Hydro-Electric Commission, Metropolitan Water Board, National Parks and Wildlife Service and Transport Departments.

STATEMENT OF SOURCE AND APPLICATION OF FUNDS

As shown in the following statement, the funds obtained during 1984-85 from all sources (including the Special Commonwealth funds for the Second Hobart Bridge project) amounted to \$103 620 236 an increase of 9.1 per cent as compared with 1983-84.

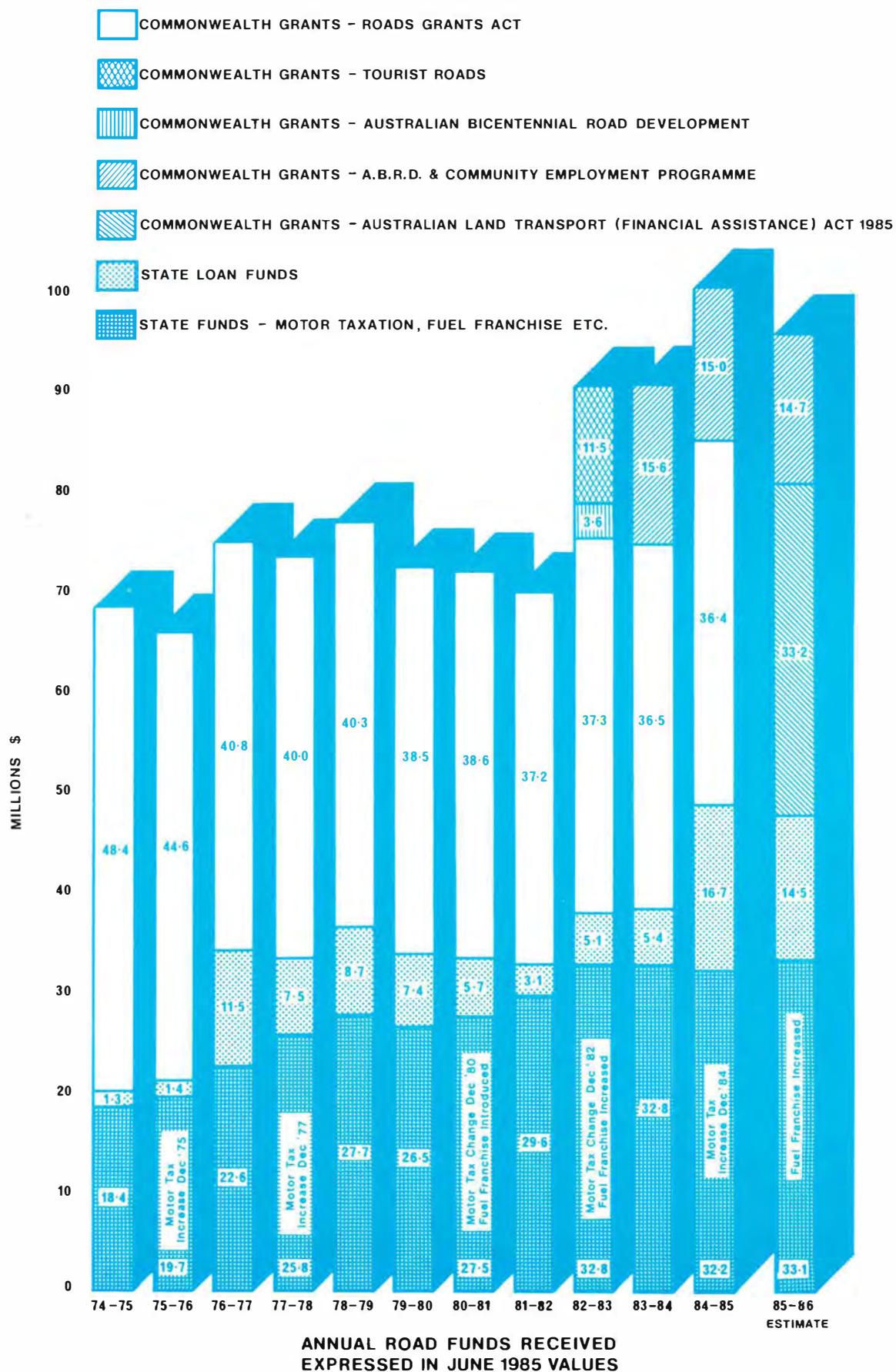
Excluding the funds for the Second Hobart Bridge, the total of funds from all other sources amounted to \$102 772 749 in 1984-85 as compared with \$89 496 211 in 1983-84, an increase of 14.8 per cent.

SOURCES OF FUNDS

1983-84		1984-85	
\$		\$	\$
30 925 140	State Highways Trust Fund—		
	(a) State Motor Taxation, Public Vehicle Fees, Fuel Franchise and		
	Miscellaneous Receipts	31 636 900	
47 452 555	(b) Commonwealth Grants for Roads	49 962 738	
78 377 695			81 599 638
6 582 171	Loan Funds .....	....	18 103 694
6 689 313	Special Commonwealth Funds .....	....	1 114 684
914 195	Consolidated Revenue Fund .....	....	1 050 569
1 763 859	Funds Provided by other Departments and Authorities .....	....	1 751 651
692 171	Net decrease in funds carried forward .....	....	....
\$95 019 404	TOTAL .....	....	\$103 620 236

APPLICATION OF FUNDS

1983-84		1984-85	
\$		\$	\$
72 825 543	State Highways Trust Fund—	80 744 294	
9 929 642	Roadworks	13 902 295	
15 096	Bridgeworks .....	....	
82 770 281	Ferries		94 646 589
	Loan Funds—		
320 000	Administrative Costs Refunded to Consolidated Revenue Fund	1 000 000	
250 000	Jetties and Facilities for Fisherman	185 045	
282 171	Launceston Flood Protection Scheme	53 161	
53 705	Bruny Ferry Terminals	53 173	
1 000 000	Upgrading of Fishing Ports	1 155 488	
1 905 876			2 446 867
	Special Commonwealth Funds—		
5 523 193	Second Hobart Bridge	847 487	
975 880	Tourist Road Development Roadworks .....	....	
42 526	Community Employment Programs	187 907	
1 123 594	Gordon Below Franklin Alternate Works	79 290	
7 665 193			1 114 684
	Consolidated Revenue Fund—		
483 237	Departmental Administration	525 878	
260 190	Workers Compensation (Other Departments)	332 146	
82 206	Repairs to Jetties & Facilities for Fishermen	92 053	
88 562	Other Miscellaneous Expenses	100 492	
914 195			1 050 569
1 763 859	Works for other Departments & Authorities		1 751 651
....	Net increase in funds carried forward		2 609 876
\$95 019 404			\$103 620 236



STATE HIGHWAYS TRUST FUND

The State Highways Trust Fund Account is established under the Roads and Jetties Act 1935. The fund is credited with the following moneys:—

- (1) all grants made by the Commonwealth under the Roads Grants Act, 1981 and the Australian Bicentennial Road Development Trust Fund, 1982;
- (2) all State motor taxation;
- (3) public vehicle fees imposed under Section 20A of the Traffic Act 1925;
- (4) contribution by Municipal Councils for the maintenance of classified roads;
- (5) receipts from sale of stores (other than plant);
- (6) any other moneys provided by Parliament for the purposes of the fund;
- (7) profits on contracts awarded to the Department; and
- (8) such other moneys (if any) as the Treasurer may direct.

The fund is debited with the following:—

- (a) expenses incurred in the construction, reconstruction and maintenance of State Highways and other classified roads;
- (b) costs incurred in the maintenance of Council roads which the Minister has agreed to subsidise;
- (c) contributions to the Bruny, Flinders and King Island Municipalities of portion of the Motor Tax collected in those Municipalities;
- (d) all expenditure incurred under the provisions of the Roads Grants Act 1981 and the Australian Bicentennial Road Development Trust Fund Act 1982;
- (e) cost of stores and materials (other than plant); and
- (f) repair and renewal of bridges on Council roads.

A summarised statement of receipts and payments for the State Highways Trust Fund Account for 1984-85 is set out below, together with the corresponding figures for 1983-84.

A net profit of \$119 780.27 was achieved on the four contracts completed by the Department and for which accounts were finalised in this financial year. This amount is included under Miscellaneous Receipts.

STATE HIGHWAYS TRUST FUND 1983-84

1983-84		1984-85
\$	<i>Receipts</i>	\$
428 148	Balance brought forward	711 857
47 452 555	Commonwealth Grants for roads	49 962 738
17 357 028	Motor Taxation	17 998 573
111 028	Public Vehicle Fees	170 318
11 902 268	Petroleum Products Business Franchise Licence Fees	12 211 571
4 676 295	State Loan Funds for Roads and Bridges	15 656 827
1 554 816	Miscellaneous Receipts	1 256 438
<u>\$83 482 138</u>	TOTAL	<u>\$97 968 322</u>
	<i>Payments</i>	
18 046 976	National Roads	19 479 232
47 522 892	Arterial Roads	58 528 934
17 200 413	Local Roads	16 638 423
711 857	Balance carried forward	3 321 733
<u>\$83 482 138</u>	Total	<u>\$97 968 322</u>

LOAN FUND EXPENDITURE

The loan funds of \$18 103 694, allocated to the Department for roads and bridges and other works, were applied as follows:—

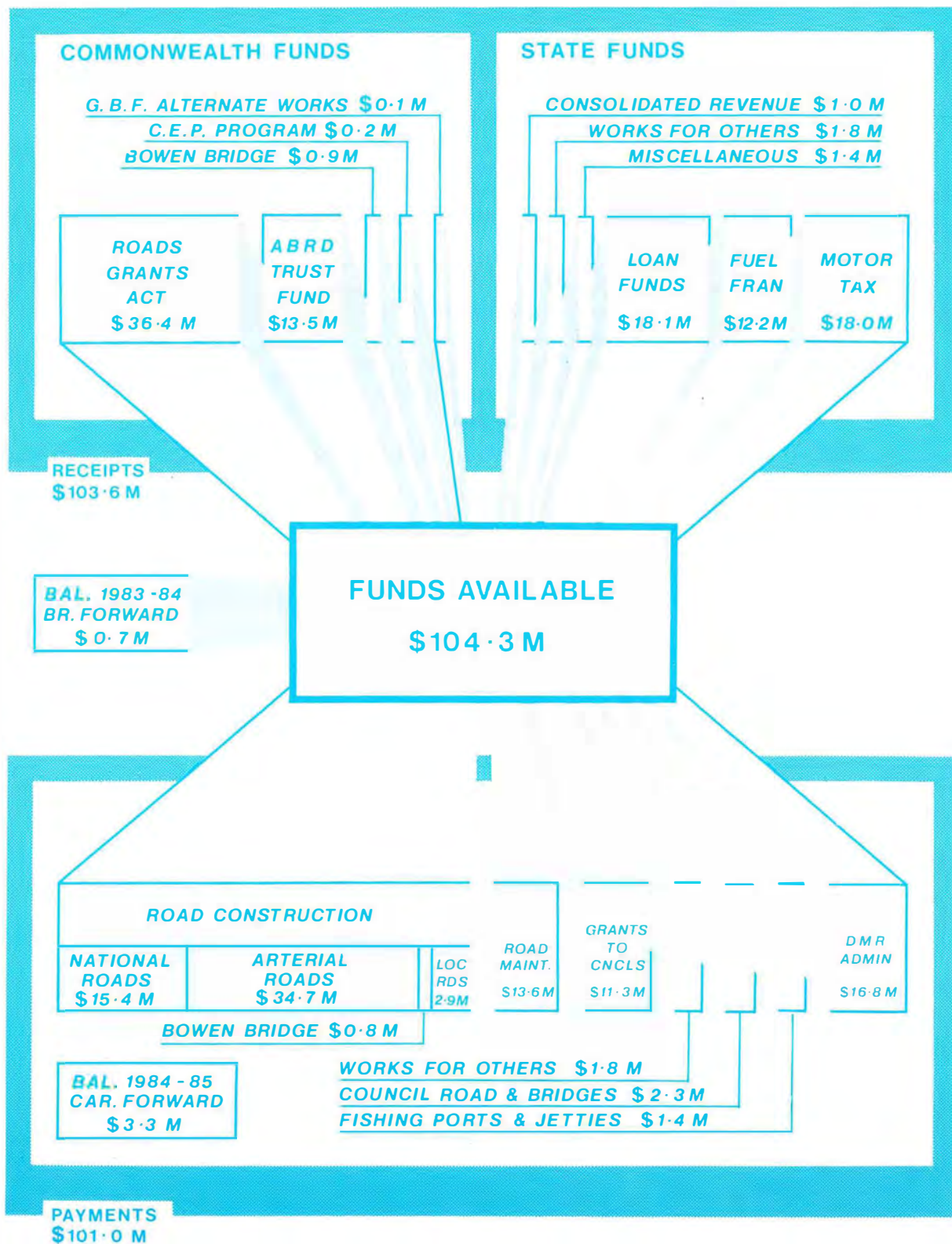
1983-84		1984-85
\$		\$
4 676 295	Roads and Bridges	15 656 827
1 905 876	Other Works	2 446 867
\$6 582 171	TOTAL	\$18 103 694

A schedule of expenditure items and amounts is shown in Annexure A. It should be noted that the loan fund amounts for the road and bridge items listed in the schedule were in most cases supplemented by funds from the State Highways Trust Fund.

FINANCIAL ASSISTANCE TO LOCAL GOVERNMENT AUTHORITIES

Under the provisions of the Roads Grants Act 1981 the Australian Bicentennial Road Development Trust Fund Act, 1982 and the Roads and Jetties Act 1935 the Department made direct grants to local government authorities based on a formula approach for construction and/or maintenance of local roads and approved projects for arterial roads controlled by Councils. The direct grants to Councils totalled \$10 053 836 a decrease of 6.00 per cent in the amount of the direct grants provided in 1983-84. Reflected in the direct Grants to Councils for 1983-84 are grants for an eighteen month period for amounts paid out of Australian Bicentennial Road Development Trust Fund. This was brought about by the late approval by the Commonwealth for grants from this fund for the period ended 30 June 1983.

In addition to the direct grants, the Department also provided indirect financial assistance to local government authorities. Under the provisions of the Roads and Jetties Act, 1935 the Department financed the repair and renewal of bridges on Council roads and carried out these bridgeworks. The Department maintained four Council Roads which have been declared as subsidised roads and provided funds to the National Parks and Wildlife Service and the Hydro Electric Commission for work on some local roads. The indirect financial assistance to Councils totalled \$2 880 995, an increase of 11.53 per cent over the preceding year. The total of direct grants and indirect financial assistance to Councils was \$12 934 831, a decrease of 2.59 per cent to 1983-84. The amounts of direct grants and indirect financial assistance to Councils for the various categories of roads and works are shown in Annexure B.



RECEIPTS & PAYMENTS 1984-85

MAJOR PROJECTS

The planning, design and construction Divisions of the Department, with assistance from technical and administrative support sections, organise the provision of designs, money and materials for the construction or reconstruction of road facilities identified in the Department's Annual Program of Works and the Forward Planning Programs.

The social and monetary costs of constructing roads on new alignments are often very high. Particularly this is so in built up urban areas where not only a very high standard road is required but also the cost of property acquisitions can run into millions of dollars. Such high acquisition costs make very significant inroads into available funds for physical road construction and have a consequential deleterious effect on the employment of labour on roadworks.

Increasing the safety and capacity of the existing road network would be a much more economical compromise. However, the local government pressure, particularly in the major urban centres at Launceston and Hobart is increasing the complexity of determining compromise solutions, and in fact, Road Transport Studies in those areas include many expensive new roads demanding substantial funds to implement.

At the same time the Government's desire to construct new roads in isolated areas of the State to encourage the general and tourist potentials of those areas is creating a new avenue for the expenditure of road funds. Three projects were commenced in 1984-85 namely:—

- Guildford-Hampshire Link Road
- Que River, Murchison Highway to Learys Corner
- Cradle Mountain Tourist Road, Link Road
- Falmouth-Chain of Lagoons Link Road

In addition, planning for the new link road between Smithton and Zeehan was undertaken in 1984-85.

It is essential that the funding for these projects be continued from sources other than those used for ongoing improvements and maintenance of the existing classified road system if current standards are to be maintained or improved.

The Department's objective for 1984-85 was to continue to plan for and to construct improvements on the Classified Road system in accordance with the Government's Road Policy and Departmental forward programs.

The Department's objective has been successfully achieved. Not only has the planned program of projects allocated to the Day Labour work force been undertaken but also the Department has been successful in winning the majority of contracts for which tenders have been called. This means that the D.M.R. is more than competitive in relation to its road construction costs. In addition the Department successfully completed the reconstruction of the Mole Creek Main Road when a private contract for the work proved unsatisfactory and the contract was terminated.

Details of major road and bridge construction achievements follow:—

MAJOR PROJECTS COMPLETED

MAJOR ROAD PROJECTS COMPLETED SUMMARY

<i>Road</i>	<i>Section</i>	<i>Cost</i>
		\$ m
NATIONAL ROADS		
<i>South-East District</i>		
Midland Highway	Bridgewater Bypass	2.56
	Oatlands Bypass	2.53
<i>North-East District</i>		
Midland Highway	Launceston Southern Outlet	
	Mt. Pleasant Interchange to Strathroy	9.73
<i>North-West District</i>		
Bass Highway	Burnie Stage B	
	Roadworks at North Terrace	0.95
URBAN ARTERIAL ROADS		
<i>South-East District</i>		
Southern Outlet Road	Duplication to Zomay Avenue	
	Extension to Macquarie Street	0.81
Algona Main Road	First stage roadwork (excluding junctions)	2.53
<i>North-East District</i>		
Launceston Southern Outlet	Glen Dhu Connector to Mt. Pleasant Interchange	9.82

MAJOR ROAD PROJECTS COMPLETED SUMMARY—continued

<i>Road</i>	<i>Section</i>	<i>Cost</i>
		\$ m
RURAL ARTERIAL ROADS		
<i>South-East District</i>		
Arthur Highway	Curve Improvements at Oakwood	0.48
Huon Highway	Huonville to Geeveston (with the exception of road-works to be undertaken through the townships of Franklin and Geeveston)	6.73
Lyell Highway	Geards Bridge to Norton Manderville	0.55
	Ouse to Strickland	0.56
<i>North-East District</i>		
Tasman Highway	Scottsdale to Ringarooma Turn Off	4.26
	St. Mary's Pass—curve improvements and land slip correction	0.60
West Tamar Highway	Muddy Creek to Lanena	0.46
<i>North-West District</i>		
Bass Highway	Wynyard to Cassidy's Bog	2.01
Murchison Highway	Cam Cliffs	0.40
Henty Main Road	Zeehan to Strahan	7.77
Mole Creek Main Road	Deloraine to Needles	2.33

MAJOR BRIDGEWORKS COMPLETED SUMMARY

<i>Bridge</i>	<i>Road and Section</i>	<i>Cost to</i>
		30.6.85
		\$ m
NATIONAL ROADS		
<i>South-East District</i>		
Gunn Street Footbridge	Midland Highway-Bridgewater Bypass	0.160
<i>North-East District</i>		
Jinglers Creek Culvert	Midland Highway, Breadalbane to Strathroy	0.185
Velodrome Access Bridge	Bass Highway-Prospect Bypass	0.669
<i>North-West District</i>		
Forth River Bridge	Bass Highway-Don Hill to Forth River	1.405
Leith Rail Underpass	Bass Highway-Don Hill to Forth River	0.532
Claytons Rivulet Culvert	Bass Highway-Forth River to Ulverstone	
Supply of precast crown units etc.	Bypass	0.146
Wilmot Street Overpass	Bass Highway-Burnie Expressway—Stage B	0.898
URBAN ARTERIAL ROADS		
<i>South-East District</i>		
Whitewater Creek Culvert	Southern Outlet Road—Extension at Kingston	0.129
Vinces Saddle Median Barriers	Huon Outlet Road	0.137
<i>North-East District</i>		
Glen Dhu Overpass	Launceston Southern Outlet Road	0.911
Glen Dhu Subway	Launceston Southern Outlet Road	0.140
RURAL ARTERIAL ROADS		
<i>South-East District</i>		
Maclaines Creek Bridge—remedial works	Tasman Highway	0.133
Pages Creek Bridge	Colebrook Main Road	0.225
Sucklings Creek Bridge	Nubeena Secondary Road	0.141
<i>North-East District</i>		
Pipers River Bridge	Lilydale Main Road	0.635
LOCAL ROADS		
<i>South-East District</i>		
Hot Springs Creek Bridge	Hastings Caves Tourist Road	0.137



OATLANDS BYPASS
Midland Highway

NATIONAL ROADS

SOUTH-EAST DISTRICT

MIDLAND HIGHWAY

BRIDGEWATER BYPASS

This Major bypass of the town of Bridgewater was completed and opened to traffic in January 1985. During 1984-85 funds were provided for the completion of the roadworks contract and for the finalisation of property acquisition. The construction of the Gunn Street footbridge was undertaken and completed under contract by the D.M.R. Landscaping was also completed.

The project commenced in 1983 and the total cost amounted to some \$2.56 million with expenditure in 1984-85 being \$1.429 million.

Oatlands Bypass

The construction of this project by the D.M.R. under contract was completed some six months ahead of the scheduled completion date and the road was opened to traffic in April 1985. Landscaping was let as a separate contract and it is anticipated that it will be completed by December, 1985.

Work on this bypass commenced in 1983 and its opening marked a further significant improvement in the standard of the Midland Highway. It allows motorists to travel at normal highway speeds without interruption from Bagdad to Campbell Town, a distance of nearly 100 km.

The total cost of the bypass amounted to some \$2.53 million with expenditure in 1984-85 being \$1.573 million.

NORTH-EAST DISTRICT

MIDLAND HIGHWAY

LAUNCESTON SOUTHERN OUTLET ROAD (INCLUDING URBAN ARTERIAL SECTION FOR THIS GENERAL REPORT)

1. Historical Background

In the Launceston Area Transportation Study Report presented in 1968, the recommended plan envisaged the construction of a number of new expressways and connecting roadways built to expressway standard. Included was a four lane divided roadway linking Melbourne Street in Glen Dhu with the Midland Highway south of Franklin Village.

The subsequent Launceston Transportation Revision 1976-77 endorsed this recommendation and proposed that construction should commence in 1981-82. This date was, in fact, brought forward to 1980 by the Committee which was established to implement the Launceston Transportation Revision program.

The Launceston Southern Outlet Road would provide a new access to the city from both the Midland and Bass Highway, and consist of a series of projects, namely:—

- Glen Dhu Corridor—from Bathurst and Wellington Streets to the Glen Dhu Connector between Shamrock and Melbourne Streets.
- Southern Outlet (Urban Section)—from the Glen Dhu Connector to Mt Pleasant Interchange (New junction of Bass and Midland Highways).
- Southern Outlet (Rural Section, First Stage)—Mt Pleasant Interchange to the Midland Highway at Strathroy. This was originally to be single carriageway with climbing lanes but following representations by the newly elected Tasmanian Liberal Government to the Commonwealth Department of Transport it was agreed that the road would be dual carriageway.
- Southern Outlet (Rural Section, Second Stage)—Strathroy to Breadalbane. Also dual Carriageway.
- Prospect Connector—Mt Pleasant Interchange to Bass Highway at Stanley Street. The recent decision of the Commonwealth Minister not to allow ramp connection at the Velodrome has effectively eliminated the prospect connector from the system.
- Prospect Bypass—Mt Pleasant Interchange to existing highway at Prospect Vale. National Highway project adopted by L.T.R.I.C.C. to complete new major road network.

It was determined by the Launceston Transportation revision Implementation Co-ordination Committee, which consists of representatives of the D.M.R., Transport Tasmania, Port of Launceston Authority, Tamar Regional Master Planning Authority, and Local Government authorities, that the whole section of the new road between Glen Dhu and Strathroy would be completed as one stage.

2. Funding and Execution of Work

The sections of the Launceston Southern Outlet Road south and west of the Mt Pleasant Interchange form part of the National Highway and have been designed and constructed to National Highway standards. North of Mt Pleasant the road forms part of the urban arterial network. The bulk of the funding has been derived from Commonwealth National Roads and Arterial Roads Grants, including Australian Bicentennial Road Development funds. Work on the Outlet Road has been carried out by both contract and direct labour. However, under current legislation all major work on the National Highway must be by contract.

3. Work to Date

The first stage of the outlet road between Glen Dhu and Strathroy commenced early in 1981 and comprised the construction of 7.4 km of dual carriageway landscaped highway and included three major bridges, namely the Mt Pleasant Interchange, the Westbury Road Overpass and the Glen Dhu Overpass. The construction of several large concrete pipe culverts and a pedestrian underpass was also required.

4. Work in Progress and Future Work

The next stages of the outlet road consist of an extension south from Strathroy to Breadalbane, and the Prospect Bypass westward from the Mt Pleasant Interchange to Prospect Vale where it will link up with the existing Bass Highway. The arterial link northward via the Glen Dhu Corridor to Bathurst and Wellington Streets will also be continued. Details of individual sections on the National Highway follow:—

NOTE: Details of the Urban Arterial Road sections appear under the Urban Arterial Roads section of this report.

MT PLEASANT TO STRATHROY

This section of the Outlet was included in the section opened to traffic in February 1985, from the Glen Dhu interchange to the temporary connection onto the old Midland Highway at Jingle Creek, Strathroy. The National Highway and Urban Arterial sections were opened concurrently.

This excellent facility has provided for easier access to and from the City of Launceston from the South and has relieved the congestion of traffic in the Kings Meadows area on the Hobart Road.

The existing Midland Highway at Strathroy will be maintained in its current form to provide direct access to the southern suburbs.

The section from Glen Dhu overpass to Westbury Road bridge was undertaken by day labour and the remainder to Strathroy by D.M.R. as contractor.

In 1984-85 funds were provided to complete the contract for pavement, to meet carryovers from 1983-84, and to finalise acquisition of property. The total expenditure on the National Highways Section in 1984-85 amounted to \$1.318 million.

Work on this project commenced in February, 1981, for the day labour sections and in January, 1984, for the Contract section. The total cost of the project (National Highways Section) amounted to some \$9.73 million.

STRATHROY TO BREADALBANE

This will also form part of the National Highway and will comprise a four lane facility. The preliminary estimate for this section is \$7.0 million and it is scheduled for completion in 1986-87.

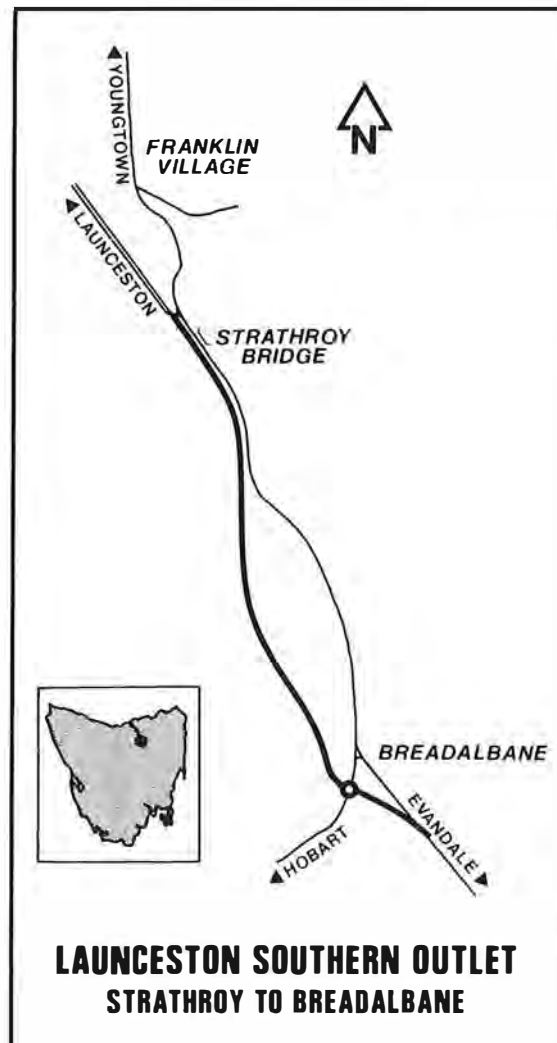
Planning and Design

The design of the first section from Strathroy to just north of the existing highway at Breadalbane was completed. The design of the second section, including the Breadalbane at grade roundabout and new road link to the Evandale Main Road, is virtually complete.

Construction

The Jinglers Creek Culvert is nearing completion. The contract for the first section of roadworks was awarded to a private contractor. The contractor encountered difficulties on the site mainly due to wet conditions. Work was commenced in March 1985 but subsequently suspended.

An amount of \$0.847 million was expended on this section of highway in 1984-85.



BREADALBANE TO LEIGHLAND S.R. (PERTH BYPASS)

Planning and Design

An Overview Report is being prepared describing the existing Highway deficiencies and outlining optional solutions for upgrading the Highway and for providing a bypass of Perth. Because of the engineering, regional planning, social environmental and economic factors relating to this project, the detailed evaluation of these options will be the subject of a subsequent Highway Planning Report.

PERTH TO CAMPBELL TOWN

Planning and Design

An investigation of substandard alignment with emphasis on lack of overtaking opportunity due to vertical curves, was carried out between Perth and Campbell Town. A number of locations deficient in sight distance have been identified, and work is now progressing towards preparation of a planning report.

BASS HIGHWAY

PROSPECT BYPASS

Planning and Design

Final Design and contract documentation for a 1.5 km earthworks and drainage contract were completed.

Design is continuing for a further 1 km section being the balance of the main through carriageways.

Negotiations are still continuing with the Federal Department of Transport on the form and location of connections between the bypass and the existing street network at both ends of the bypass.

Construction

The Bypass when constructed will form part of this State's National Highway system and will be the main entrance to Launceston for traffic from the North West Coast. This traffic will join the Launceston Southern Outlet at the Mt Pleasant Interchange.

Access to the Veldrome site is by a separate road from Westbury road with an overpass over the Prospect bypass. A final decision on the construction of on and off ramps at the Velodrome overpass is yet to be reached.

The first construction contract for roadworks consisting of earthworks and part pavement has been advertised and tenders received. It is anticipated that work will commence as soon as the tender has been awarded.

The Velodrome Access Bridge, a two span 48 metre long overpass, was completed by contract in December, 1984. The acquisition of property has also been undertaken. The total expenditure on this project for 1984-85 amounted to \$0.810 million.

PROSPECT VALE TO DELORAINE

Planning and Design

An overview report on the deficiencies and proposals for improvement of this 39 km of National Highway has been completed and sent to the Commonwealth Government for consideration.

The report describes the existing route in terms of the physical environment, hydrology, land use, alignment, sight distance, traffic volumes, speeds and accidents. Proposals are made for bypassing towns and upgrading the remaining part of the existing route.

PROSPECT BYPASS TO HADSPEN BRIDGE

Planning and Design

Investigation into the most appropriate route and road connections is virtually complete with detailed design to proceed into next financial year. An Environmental Study and H.P.R. are in progress.

HADSPEN TO CARRICK

Planning and Design

Following the submission to the Commonwealth Department of Transport, Canberra of the Overview Report from Prospect Vale to Deloraine, a Highway Planning Report is now being prepared for this section of the Highway. This report will examine the various options available and will describe in greater detail the proposed highway improvement, including the important junction with the Illawarra Main Road.

CARRICK BYPASS

Planning and Design

The abovementioned overview report has recommended bypassing the town of Carrick. Accordingly, various options were examined and a bypass route to the north of the town is favoured. This will involve a new bridge across the Liffey River, the junctions of the existing highway and the bypass will be provided due east and west of the town.

NOTE:—Following further consideration early in the 1985-86 financial year, a total deviation of the existing highway between Pateena Road and Deloraine is being investigated.

EAST TAMAR HIGHWAY

PLANNING AND DEVELOPMENT

A draft Departmental report was circulated to members of the Launceston Transportation Revision Implementation and Co-ordination Committee (L.T.R.I.C.C.) and George Town Municipal Council for comment.

The November, 1984 L.T.R.I.C.C. meeting agreed that a report should be forwarded to the Federal Department of Transport (D.O.T.) recommending that the road be re-classified as a National Highway. The Port of Launceston Authority (P.L.A.) agreed to provide information on freight movements through the Bell Bay Port to add further weight to the re-classification case. This data was received in May and is being incorporated into the final report to the D.O.T.

Lilydale Main Road Junction

Design on this junction which will provide a right-hand turn lane for Lilydale bound traffic was completed.

Tompson's Lane Junction

A contract is expected to be let shortly for work in the vicinity of Tompson's Lane. This work will provide reasonable sight distance on the highway and improve safety aspects of the Tompson's Lane junction. The design was carried out by Consultants appointed by the Department.

Vicinity of Bell Bay

Design has just commenced on a 3 km stretch of the highway at the northern (Bell Bay) end with a view to increasing the standard of the road eventually over the whole length.

Williams Creek

Design and construction of a realignment at Williams Creek was completed.

CONSTRUCTION

The continuing of the present improvement to the highway is being carried out under the National Road program. D.M.R. was successful in the tender for the Williams Creek Realignment Contract and accomplished the work ahead of schedule. The contract amount is \$0.630 million.

Minor construction projects undertaken on this highway in 1984-85 included junction improvements at the Lilydale Main Road Junction and the Tompson's Lane Junction.

An amount of \$0.749 million was expended during 1984-85. Over \$5 million has now been spent on reconstructing and improving this Highway from National Roads Grants.

NORTH-WEST DISTRICT

BASS HIGHWAY

DELORAINE BYPASS

Planning and Design

Detailed design of the bypass has continued and land acquisition is in progress. Construction has been programmed as a series of contracts comprising three bridges, one stock underpass, roadworks for the bypass and for the Mole Creek Connector. The first contract, for Meander River Bridge has been let to the Department on a competitive tender basis.

Construction

Funds, amounting to \$0.146 million, were provided in 1984-85 for a number of property acquisitions which relate to access to the new Meander River Bridge site. Construction of the new bridge commenced late in 1984-85 and will continue in 1985-86.

DON HILL TO FORTH RIVER

Planning and Design

The design on this project was completed in March 1985 with the final checking and amendment of the Stage 2 construction plans.

Construction

This project is for the duplication of the Bass Highway from Don Hill to Forth River as the first stage of duplicating the Highway from Don Hill to the Eastern end of the Ulverstone Bypass. Construction of the Forth River Bridge commenced in 1983-84 by Contract and funds were provided for its completion in 1984-85. Funds were also provided for the construction by contract of the Leith Rail Underpass, including property acquisition, alterations to services, consultants fees, road design and contract roadworks.

FORTH RIVER BRIDGE

This five span, 137 m long bridge and its associated approach embankments were completed in May 1985 at a cost of approximately \$1.425 million.

LEITH RAIL UNDERPASS

This single span underpass, with its reinforced earth panels retaining the approach embankments on which the abutments are supported, was completed by December 1984 at a cost of some \$0.567 million.

DON HILL—FORTH RIVER STAGE 1 ROADWORKS

This stage consists of the duplication of the highway for westbound traffic. The carriageway has been completed and sealed except for the transition to the existing highway. The carriageway will be opened to westbound traffic as soon as this work is complete. The D.M.R. is the contractor and the contract amount is \$1.65 million.

Expenditure on this project for 1984-85 amounted to \$3.075 million and the total cost of the project to 30 June 1985 was \$4.740 million.

Continuation of the improvement to the Bass Highway on the Don—Forth section will be undertaken in the Stage II contract which will be let in the next financial year (1985-86).

FORTH RIVER TO ULVERSTONE BYPASS

Planning and Design

The Highway Planning Report submitted to the Commonwealth Department of Transport was approved and the design parameters were fully agreed with the Commonwealth Government. The proposed improvement has also been discussed in detail with the Ulverstone Municipal Council who have accepted the responsibility for all the new and altered frontager service roads. The upgraded dual carriageway Bass Highway, the ramps at Turners Beach Interchange, the bridge structures and the Forth Main Road will remain the responsibility of the D.M.R.

The project has been divided into six major contracts for construction purposes. Two for Claytons Rivulet, one for Turners Beach Road Overpass, one for the service road near Claytons Rivulet and two for the highway, balance of the service roads and the ramps at Turners Beach Interchange. The road has been completed for the first four contracts and is proceeding for the last two.

Construction

In 1984-85 provision was made for preliminary works for this second stage of the Bass Highway duplication from Don Hill to Ulverstone Bypass. Included were alterations to services and acquisition of property.

In addition work was commenced by contract on the Clayton's Rivulet Culvert.

Expenditure on this project in 1984-85 amounted to \$0.541 million.



FORTH RIVER BRIDGE
Bass Highway



DON HILL TO FORTH RIVER
Bass Highway

PENGUIN TO CHASM CREEK

Planning and Design

The Overview Report prepared previously described options for upgrading the highway to four lanes divided with access control. Detailed investigations were undertaken along the route of the preferred option south of Preservation Bay and Sulphur Creek. These investigations indicated that the magnitude of potential problems due to ground instability was greater than expected.

A further corridor of interest was identified approximately 1-2 kilometres from the coast between Penguin and Howth and evaluation of options within this corridor is proceeding prior to the selection of the final scheme.

BURNIE EXPRESSWAY—STAGE B

Planning and Design

Design plans and contract documentation were completed for contract No. 4, the section from the View Road Overpass to North Terrace. Contract 5 covers the section between the Oakleigh Rail Crossing and View Road including the traffic signalised intersections with Mount and Wilson Streets.

This is the last major contract for this project and design plans are well advanced. These plans will be finished early in the 1985-86 financial year.

Construction

Extensive work on this major project continued in 1984-85. Contract construction of roadworks at North Terrace commenced in 1983-84, were completed. Funds were provided for the continuation of contract construction of bridgeworks and roadworks at Wilmot Street and from View Road to High Street including the Jones Street Overpass. Provision was also made for acquisition of property, accommodation works, landscaping and alterations to services.

WILMOT STREET OVERPASS

This three span, 42 m long overpass, with its reinforced earth panels retaining the approach roads and supporting the abutments, was opened to traffic in mid-February 1985 at a cost of \$0.972 million.

VIEW ROAD TO HIGH STREET—BURNIE

This project is one of a number of contracts being carried out which, when completed, will form the Burnie Expressway.

The works included in this Contract comprise the construction of a dual carriageway road approximately 0.25 km long supported by fill retained by reinforced earth walls, a single span underpass structure at Jones Street, and some additional excavation.

The underpass has a single span of 20 m and a width of 22 m. Its superstructure consists of pretensioned precast beams composite with an insitu reinforced concrete deck. It is supported on reinforced concrete sill abutments founded on the approach embankment contained within the reinforced earth retaining walls.

HIGH STREET TO NORTH TERRACE

The contract was awarded to the D.M.R. and work commenced in June 1985. The contract amount is \$1.52 million.

Expenditure on all projects on the Burnie Expressway Stage B in 1984-85 amounted to \$3.162 million. Total expenditure to the 30 June 1985 is \$8.466 million.



VIEW ROAD TO HIGH STREET
Burnie Expressway, Stage B

URBAN ARTERIAL ROADS

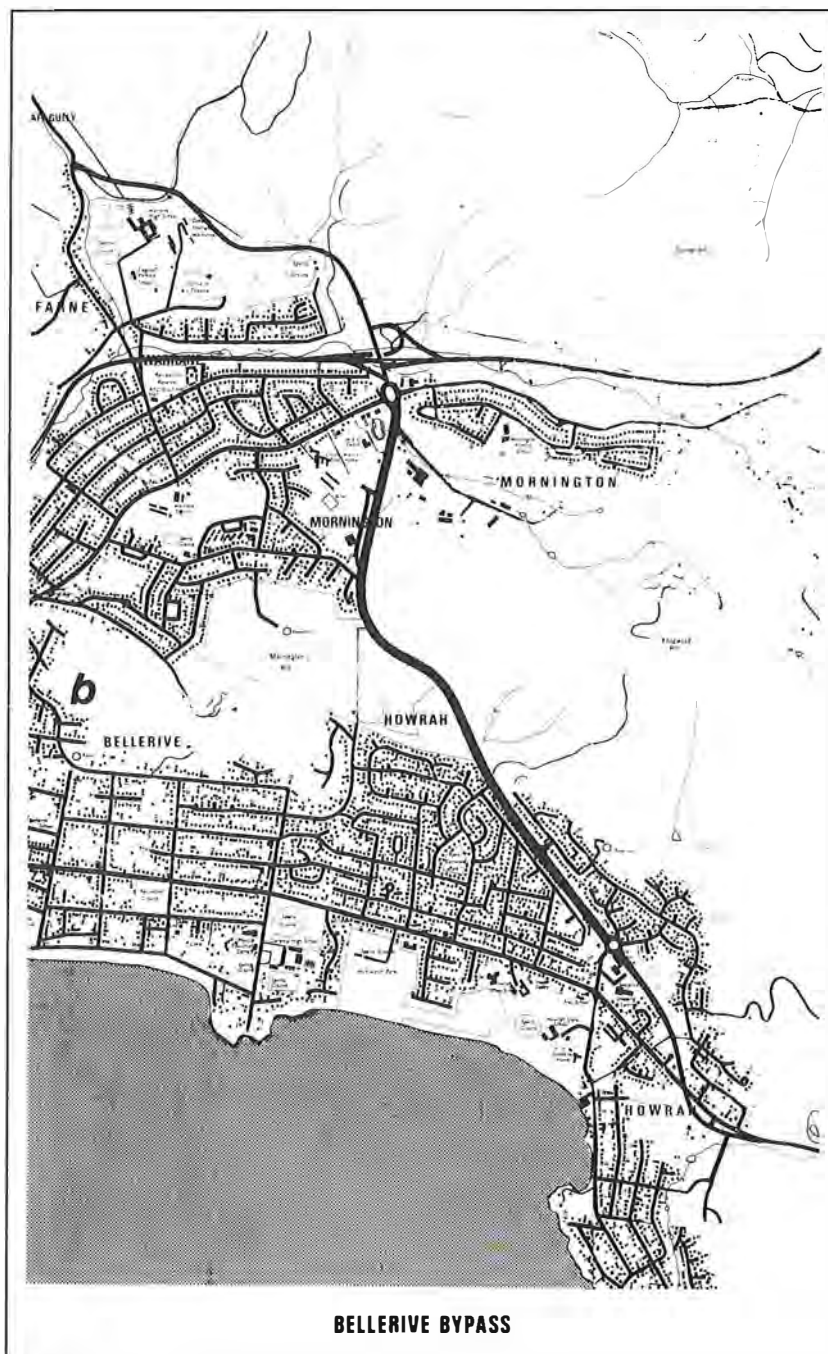
Hobart Statistical Division

BELLERIVE BYPASS

PLANNING AND DESIGN

Following a public display of the Bypass proposal at the Clarence Council Chambers in September 1984 objections and counter proposals were received from the public, in particular, the Howrah Development Association. The views expressed by the public have been carefully considered and significant changes to the layout have been made as a result of consultation with the Clarence Council, Transport Department Tasmania and the Metropolitan Transport Trust.

The amended scheme has been referred to the Department of the Environment for final environmental clearance.



HOBART SOUTHERN OUTLET ROAD

EXTENSION TO MACQUARIE STREET

Construction

In 1984-85 funds were provided for the completion of the junctions associated with this project and for the re-routing of traffic at Macquarie and Davey Streets. Expenditure amounted to \$0.491 million in 1984-85 and the total cost of the project was \$0.814 million.

DUPLICATION ZOMAY AVENUE TO OLINDA GROVE

Planning and Design

Preliminary design was completed for this section of approximately 1 kilometre of highway to be widened to four lanes separated by a concrete New Jersey Barrier.

Construction

This project was commenced at Cabinet's direction as an additional project during 1983-84. At the end of that year earthworks for the divided carriageway were well advanced and the Southbound section was nearing completion.

In 1984-85 funds were provided for the continuation of roadworks including the ramps at Olinda Grove and the Olinda Grove Overpass structure. Provision was also made for property acquisitions.

NEW JERSEY TRAFFIC BARRIERS

Work started in the latter part of the year on the manufacture of precast traffic barrier units.

Some 433 units are required and by the end of the year eighty-eight edge units and all the median transition units had been manufactured.

DUPLICATION OF THE CARRIAGEWAY AND TEMPORARY JUNCTION AT OLINDA GROVE

Work on the duplication of the carriageway between Zomay Avenue and Olinda Grove was continued and the pavement has been partly completed. It is anticipated that completion will be achieved in 1985-86. The work was carried out by the D.M.R. day labour force.

In addition a temporary junction at Olinda Grove was completed and opened to traffic with the intention of facilitating traffic movement between the Southern Outlet Road and the Hobart Matriculation College.

The cost of all works on this section of the Outlet in 1984-85 amounted to \$1.6 million. The total cost of this project to 30 June 1985 was \$2 million.

MT NELSON INTERCHANGE

Planning and Design

Preliminary design plans for this interchange were completed and approved. Final design was completed to a stage which enabled construction of the eastern portion of the interchange to be largely completed and opened to traffic. Agreement was reached with the Hobart City Council as to future responsibility in the interchange area.

Design of the western side of the interchange including the bridge overpass road approaches, has commenced and will be available to meet the anticipated start of construction early in 1985-86.

OLINDA GROVE OVERPASS

This structure will provide interchange grade separation at the junction of the Hobart Southern Outlet Road and Olinda Grove.

The overpass has a two-span superstructure consisting of inverted pretensioned beams supporting a concrete deck. Overall length is 43.8 m with a width of 12.44 m which includes a footpath on one side.

The substructure consists of reinforced concrete abutments and a pier with two columns founded on spread footings.

Construction commenced in October 1984.



MT NELSON INTERCHANGE
Southern Outlet

OLINDA GROVE TO KINGSTON

Planning and Design

A preliminary design report was prepared for this section which recommends early construction of a second carriageway over the entire length, to be completed in three stages. Stage I, between Mount Nelson and Proctors Road underpass was approved in principle and final design of this section has commenced.

EXTENSION AT KINGSTON

KINGSTON BYPASS

Planning and Design

Following discussion with the various authorities, design of the first stage at-grade junction with the Channel Highway and Summerleas Road has been completed. Plans have been issued for construction by day labour.

Construction

This project commenced with the construction of the Whitewater Creek Culvert in 1983-84. Work provided for in 1984-85 included the commencement of contract construction of both the Kingston Interchange Underpass and the construction of the Outlet between Summerleas Road and the existing turn off to both the Huon Outlet and Kingston.

KINGSTON INTERCHANGE UNDERPASS

This structure will provide the grade separation to a half diamond interchange at the junction of the proposed extension of the Hobart Southern Outlet and the Huon Outlet at Kingston.

Work started on the construction of this three span underpass in January 1985. The substructure is completed and fabrication of the steel beams has also been completed.

ROADWORKS

The contract for the construction of the outlet road between Summerleas Road and the turn off to the Huon or Kingston (Kingston Bypass) was won by the D.M.R. at the contract price of \$900 000. Work commenced in March 1985. Construction has progressed to sub-base level over most of the length.

The Summerleas road junction area will be constructed by D.M.R. day labour.

Completion of the Kingston Bypass has been planned to coincide with the completion of construction of Algona Main Road.

Cost associated with this project in 1984-85 amounted to \$0.474 million. The total cost to 30 June 1985 was \$0.626 million.

TASMAN HIGHWAY/DAVEY STREET EXTENSION

PLANNING AND DESIGN

Early in the calendar year the Government approved the construction of an international hotel on the site of the former Metropolitan Transport Trust depot and other adjacent properties. The initial design concept for the hotel was severely criticised by the public and was subsequently modified to overcome most of the complaints received. Because the hotel and the road proposals are intimately linked delay in finalising the hotel layout has of necessity delayed the completion of the planning for the road scheme. However this is now almost finalised. The agreed scheme includes the following elements:—

- Extension of Davey Street from Park Street to Hunter Street.
- A six lane extension of the Tasman Highway across the old railway yards to Park Street.
- A Domain service road between Evans Street and the Regatta Pavilion.
- Extension of Campbell Street from Macquarie Street to Davey Street.
- Widening of Macquarie Street between Dunn Street and Evans Street.
- Reconstruction of Evans Street.

Planning was carried out by Departmental officers assisted by a Technical Committee. Detailed design is about to commence.

CONSTRUCTION

Funds were provided in 1984-85 for preliminary works and property acquisitions associated with this project. Some major acquisitions were completed in 1983-84.

Expenditure on the above items in 1984-85 amounted to \$1.165 million. Total expenditure to 30 June 1985 was \$1.922 million.

ALGONA MAIN ROAD

PLANNING AND DESIGN

For contract purposes, this road was divided into two stages. Stage 1, comprising the main part of the work, length of 2.82 km which has just been constructed and Stage 2, comprising two junctions with the Channel Highway, Roslyn Avenue and Opal Avenue, for which tenders have been called.

CONSTRUCTION

The first stage of this new road link between the Channel Highway and Blackmans Bay has now been completed by the private contractor undertaking this Contract. Work commenced in March 1984 and reached practical completion in June 1985. The contract amount is \$1.88 m. The junction works will be advertised in the next financial year and completion programmed to coincide with the opening of the Kingston Bypass works.

Cost associated with this project in 1984-85 amounted to \$2.009 million. Total cost to 30 June 1985 was \$2.526 million.

HUON OUTLET ROAD—EXTENSION SANDFLY TO VINCES SADDLE

PLANNING AND DESIGN

Design for the junction with Sandfly Secondary Road was completed.

CONSTRUCTION

Construction of this section of the Huon Outlet Road commenced during 1983-84 with the earthworks being substantially complete and the sub-base underway by the end of that financial year. In 1984-85 considered progress was achieved and work including the completion and sealing of the section and the placement of New Jersey barrier units was undertaken. Only the junctions at Sandfly and Vincés Saddle remain as major projects. The New Jersey barrier units now installed in the medians between carriageways were constructed at the D.M.R. precasting yard at Lutana Quarry.

Expenditure on this section of the Outlet in 1984-85 amounted to \$3.436 million and the total expenditure to 30 June 1985 was \$6.418 million.

CHANNEL HIGHWAY

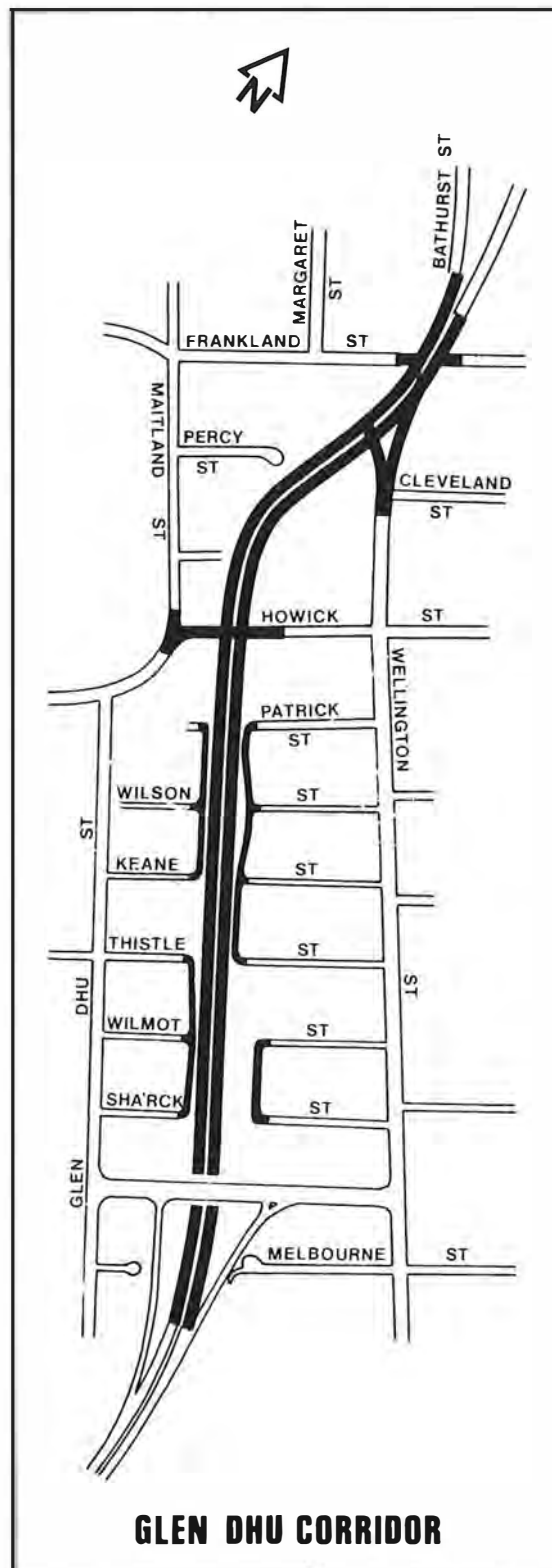
SNUG TO O'BRIENS HILL

Planning and Design

Design of this section of highway recently commenced and a preliminary plan has been forwarded to the Bridge Design Division for assessment of the Snug Creek mud-flats crossing.

DOWSING POINT BAILEY BRIDGE

Demolition work was completed on the 19 October 1984 for this temporary bridge which was erected as an emergency crossing of the Derwent River as a result of the Tasmanian Bridge disaster in January 1975. The bridge performed a magnificent service during the repair period for the Tasman Bridge. Subsequently it continued to provide a second crossing of the Derwent River until the opening of the new Bowen Bridge. Demolition work then commenced.



URBAN ARTERIAL ROADS

LAUNCESTON URBAN AREA

LAUNCESTON SOUTHERN OUTLET—URBAN SECTION

CONSTRUCTION

The urban section of Launceston Southern Outlet from the Glen Dhu Connector to the Mt Pleasant Interchange (the new junction of the Bass and Midland Highways) was completed and opened to traffic in February 1985. The opening was concurrent with the opening of the National Highways section from the Mt Pleasant Interchange to Strathroy (see detailed report under National Highway Section).

The continuation of this project by D.M.R. day labour forces was provided for in 1984-85. Work undertaken included the completion of construction of the Glen Dhu Overpass and the Glen Dhu subway, batter protection was installed on the Westbury Road Overpass and the road construction associated with this project was completed.

GLEN DHU OVERPASS

This two span 50 m long overpass was completed on 19 January 1985 at a cost of \$0.916 million.

GLEN DHU SUBWAY

This Subway was also completed at a cost of \$0.14 million.

EXPENDITURE

The total cost of this project (Urban Arterial Section) in 1984-85 amounted to \$1.522 million. the cost from the commencement of the project until 30 June 1985 was \$9.816 million.

GLEN DHU CORRIDOR ROUTE

Planning and Design

The design of the Glen Dhu Section of the Launceston Outlet is nearing completion.

The design consists of a 1 km section of dual carriageway with signalised intersections at Howick Street and near Frankland Street. Service roads have been provided to maintain residential and industrial access to the surrounding area. Pedestrian facilities, including a pedestrian footbridge near Thistle Street, have been provided.

This project has required very close liaison with the Launceston City Council, and all the Public Utility Authorities, to resolve the many complex issues of locating and altering existing services.

Construction

The construction of this northerly section of the Southern Outlet Road will connect the section being constructed between Westbury Road and Glen Dhu Connector to Bathurst and Wellington Streets.

Progress to date has been restricted to acquisition of the considerable number of properties which were necessary to provide the road reservation. The first contract in this section is for construction of service roads and alteration to services. Other works will involve the construction of the divided dual carriageway, and a pedestrian overpass at Thistle Street.

Costs associated with this project in 1984-85 amounted to \$0.990 million. The total cost to 30 June 1985 was \$5.920 million.

WEST TAMAR HIGHWAY

BARNES HILL—WIDENING

Planning and Design

The Department developed a scheme for providing two northbound traffic lanes plus a parking lane that minimised property acquisition. This scheme required only one total acquisition and this has been completed. Access to properties on the eastern or low side of the road were to be provided via a separate service road which necessitated a long length of concrete retaining wall between the through carriageway and the service road. Due to high cost estimates further evaluation of this project is to be undertaken.

KINGS MEADOWS CONNECTOR

PLANNING AND DESIGN

Investigations were put in hand to determine possible routes for a new road, the Kings Meadows Connector, to provide a connection between Hobart Road at Kings Meadows with the new Launceston Southern Outlet Road.

RURAL ARTERIAL ROADS

SOUTH-EAST DISTRICT

ARTHUR HIGHWAY

PLANNING AND DESIGN

Murdunna to Hawks Hill

A design to improve the alignment of two substandard curves, between Murdunna and Hawks Hill, has been completed.

Hawks Hill to Eaglehawk Neck

A detailed examination is being carried out on an alignment following the Old Coach Road. Survey information suitable for plotting computer contours has been obtained and the road design will now be carried out.

Eaglehawk Neck to Taranna

Following a rudimentary examination of upgrading the highway along the existing corridor from Eaglehawk Neck to Taranna, Consultants have been asked to prepare a planning report on the options including an inland route.

CONSTRUCTION

Murdunna to Port Arthur

In 1984-85 funds were provided for the continuation of road improvements including pavement rehabilitation between Murdunna and the top of Hawks Hill and the completion of alignment improvements at Oakwood.

Continuation of the works on the road improvement from Murdunna to Hawks Hill for the financial year achieved 4 km of primer seal on the completed pavement. Earthworks drainage and pavement work for the remainder of the section were nearly completed.

Expenditure on this section in 1984-85 amounted to \$0.683 million.

Alignment improvements to substandard curves at Oakwood were completed and primer sealed.

Expenditure for this work amounted to \$0.372 million in 1984-85. The total cost of this project was \$0.477 million.

HUON HIGHWAY

PLANNING AND DESIGN

Vinces Saddle to Grove

Plans for the Dip Road to Grove section including the intersection at Grove have been issued to the District Engineer, South-East District. Plans for the section between the terminus of the Huon Outlet at Vincés Saddle and Dip Road have been traced and are currently being checked.

Grove to Huonville

A preliminary design for approval in principle has just been completed by a firm of Consulting Engineers and is being assessed by this Department.

Geeveston to Huonville

The only remaining lengths to be reconstructed are those through the towns of Franklin and Geeveston. The design through Franklin has been deferred whilst the design for reconstruction through Geeveston has been given priority.

Plotting of survey information for this section currently in progress.

CONSTRUCTION

In 1984-85 provision was made for road improvements including continuation of roadworks from Vines Saddle to Grove, service relocations on the section from Grove to Huonville and provision for property acquisitions and construction carryovers on the section from Huonville to Geeveston.

Vines Saddle to Grove

2 km of the 5 km section between Grove and Vines Saddle has been completed to primer seal. Further earthworks and drainage construction were undertaken in progressing towards Vines Saddle. An amount of \$1.7 m was spent in the year and it is proposed to have the road completed in the next financial year. These projects are being carried out by the D.M.R.'s day labour force.

Huonville to Geeveston

While the major construction work on this section of highway was completed in 1983-84, acquisition of property and bridgeworks continued in 1984-85. The bridgeworks involved the widening of the Castle Forbes Bay Rivulet Bridge and associated roadworks. Some final sealing work was also undertaken.

Expenditure in 1984-85 amounted to \$0.205 million and the total expenditure to 30 June was \$6.727 million.

LAKE HIGHWAY

PLANNING AND DESIGN

Miena to Marlborough Highway

Design has been completed for the section of the Highway from Miena to the Marlborough Highway Junction, a distance of 6.1 km.

CONSTRUCTION

In 1984-85 funds were provided for road improvements including reconstruction and sealing between Miena and the Marlborough Highway and provision for carryover costs on the Clyde River Bridge at Bothwell.

Work commenced on the upgrading of the highway in August 1984. A length of 4 km including the improvement to the Marlborough-Lake Highway junction was sealed. Other works included earthworks drainage and formation work towards Miena.

Expenditure in 1984-85 amounted to \$0.859 million.

LYELL HIGHWAY

LACHLAN RIVER BRIDGE TO DERWENT RIVER BRIDGE IN NEW NORFOLK

Planning and Design

Field survey work has been carried out over the 1.2 km length. Plotting has been completed and planning and preliminary design work has commenced.

This section of the Highway has many deficiencies, including poor sight distance at intersections, poor drainage and steep crossfalls on parking areas. Throughout the planning and preliminary design stages, the ultimate requirements of both the Department and the New Norfolk Council will be considered together. This will ensure that the Department can fully assess all problems relating to this section of the Highway.

NEW NORFOLK TO FENTON MAIN ROAD

Planning and Design

Design for reconstruction has been extended from Belmont to Rosegarland, a distance of approximately 1.5 km. This section is currently being reconstructed.

The section through Rosegarland to the Fenton Main Road Junction has previously been designed and reconstructed.

CONSTRUCTION

Continuation of the improvement and reconstruction of the highway was concentrated on the section between Puzzlegate Creek and Belmont Deviation, including some trimming up of last years work at the Plenty curves and the commencement of new works between Belmont and Rosegarland. Primer seal was achieved from the Plenty curves to the end of the Belmont Deviation.

The completion of the section between Puzzlegate Creek and Belmont Deviation and the commencement of work between Belmont Deviation and Rosegarland by the D.M.R.'s day labour gang saw the beginning of the end of the phase of work which commenced at New Norfolk in 1980. A further \$1.6 million was spent on this project.

FENTON MAIN ROAD TO GEARD'S BRIDGE

Planning and Design

A design over this section has been undertaken by consulting engineers. The length of this section is 4.4 km.

GEARDS BRIDGE TO NORTON MANDERVILLE

Construction

This year saw the completion of the 4.2 km pavement strengthening of the section between Geards Bridge and Norton Manderville. This work was undertaken by a private contractor.

The total cost of this section amounted to \$0.545 million.

GENERAL

Total expenditure on the reconstruction of the Lyell Highway for the past three financial years to 30 June 1985 amounted to \$5.329 million.

TASMAN HIGHWAY

FINGERPOST ROAD TO RUNNYMEDE

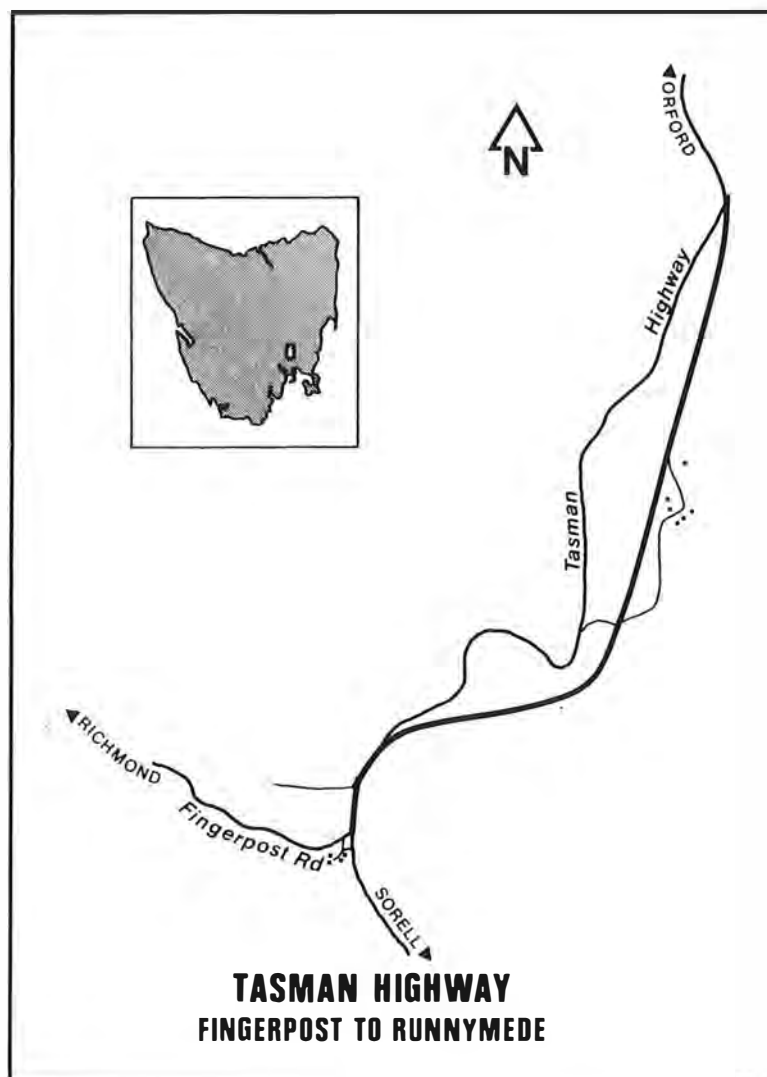
Planning Design

Design has been completed on the section between Fingerpost Road and the foot of Black Charlies Opening (5.4 km) and design is in progress between the top of Black Charlies Opening and Runnymede (1.8 km).

Construction

In 1984-85 provision was made for property acquisition and the commencement of reconstruction from Fingerpost Road to Runnymede. Carryover costs including final seals on completing projects were also catered for.

Actual reconstruction of this section of highway commenced in March this year and an amount of \$0.257 million was expended to 30 June 1985.



BRUNY MAIN ROAD

PLANNING AND DESIGN

Preliminary design has been completed for an 8 km section between Adventure Bay turn off and Lennon Main Road. Plans have been issued for the construction of the section from Adventure Bay turn off to the Neck and other sections of completed design are being supplied as required by construction staff.

CONSTRUCTION

Prior to 1983-84, reconstruction and sealing of the Bruny Main Road was carried out by the Bruny Council acting as agent for the D.M.R. The work commenced at Alonnah and extended to the Adventure Bay turn off. Expenditure in this section amounted to \$770 000.

In accordance with the Government's road policy, the D.M.R. 1983-84 works program provided an increased allocation to enable reconstruction to be accelerated. The increase in magnitude of the work led to the need for it to be undertaken by the Department's day labour forces, with some utilisation being made of Bruny Council plant. The construction program was arranged so that two year's financial programs could be executed in one visit to the island by a D.M.R. crew.

Work is being concentrated on the 21.4 km section between the Lennon Main Road and Adventure Bay turn-offs, with activity generally being northward from the Adventure Bay turn-off. During the period 1983-84 to 1984-85 the following progress was made:

- reconstruction and sealing of 2.8 km.
- preparation and priming of a further 1.2 km.
- reconstruction to sub-base level for 0.8 km north of the Neck.
- boxing-out and construction of sub-base to existing road level for widening over a further 1.6 km.
- cuttings completed for 2.0 km where outside old road alignment.

The D.M.R. gang was withdrawn in late November 1984. Expenditure for the period was:—

1983-84—\$385 000

1984-85—\$564 000

An arrangement exists whereby the Bruny Council maintains the gravel section of the road, including those parts which have been prepared but not sealed.

COLEBROOK MAIN ROAD

PLANNING AND DESIGN

Pages Creek Bridge Approaches

Design for 0.9 km of road reconstruction including bridge approaches has been carried out.

CONSTRUCTION

In 1984-85 funds were provided for the replacement of the Page's Creek bridge and associated roadworks and property acquisition on the section from the Grass Tree Hill Secondary road to Richmond.

The Page's Creek Bridge was completed in 1984-85 at a cost of \$0.225 million. Roadworks were also completed with the exception of some finishing off work which will be undertaken in 1985-86.

The total expenditure on this project in 1984-85 amounted to \$0.441 million.

NORTH-EAST DISTRICT

TASMAN HIGHWAY

LAUNCESTON TO SCOTTSDALE

The length of classified road between Waverley and Scottsdale (Bridport Main Road turn off) is 59.69 kms. The road was sealed to a width of 4.9 metres in 1940-41 and was generally maintained to the dimensions of that construction until 1982-83 when curve improvements to the value of \$0.670 million were undertaken by the then St. Leonards Council in Waverley with considerable financial assistance from the D.M.R. Other sections follow:—

WAVERLEY TO NUNAMARA

Construction

Reconstruction of this section of highway commenced in 1982-83 and with the 2.6 kms completed in 1984-85 a total length of approximately 14.7 kms has now been reconstructed.

Expenditure in 1984-85 amounted to \$0.941 million and the total cost of this project to 30 June 1985 was \$3.113 million.

SCOTTSDALE TO SCAMANDER

SCOTTSDALE TO RINGAROOMA TURN OFF

The reconstruction of this section of highway commenced in 1976 and was largely completed in 1983-84 with some finishing off being undertaken in 1984-85. The total length of this project is approximately 13.3 kms.

The total cost of the reconstruction to 30 June 1985 amounted to \$4.262 million.

BRANXHOLM TO DERBY

Planning and Design

Design has been completed from the eastern side of Branxholm to Derby, a distance of 6 kms. From Derby Back Road the Highway has been deviated for approximately 1 km, to the northern side of Valley Pond. A much improved alignment has been obtained by this deviation.

Construction

Reconstruction of this section commenced in March 1985. 3 kms of highway are currently under construction.

Expenditure to June 1985 amounted to \$0.769 million.

SCAMANDER TO SWANSEA

A major upgrading program on the Tasman Highway between Swansea and Scamander has been in progress over the past eight years. Major sections of work completed in this period include:—

- Rehabilitation, Coles Bay turn off to Bicheno
- Rehabilitation and Reconstruction, Bicheno to Chain of Lagoons
- Rehabilitation, Falmouth turn off to Scamander

In addition to these works widening and asphalt overlays have been completed on the steep section of Elephant Pass and in 1984-85 works were completed on curve improvements on St. Marys Pass at a cost of \$0.598 million.

The proposed deviation of the Tasman Highway between Falmouth turn off and Chain of Lagoons has been approved by the Parliamentary Standing Committee for Public Works and construction commenced in 1984-85.

The condition of the Tasman Highway between Swansea and Coles Bay turn off is considered to be satisfactory and when the Falmouth—Chain of Lagoons Deviation is completed, the Tasman Highway between Triabunna and Scamander should be satisfactory for current traffic usage.

Details of individual projects on this section follow:—

SCAMANDER DEVIATION

PLANNING AND DESIGN

Prior to a decision being made on the replacement of the existing Scamander River Bridge an investigation was undertaken for a possible bypass of Scamander. A recommendation was made that the plans for a bypass be abandoned because of the steep grades and the incompatibility of the bypass. The existing Scamander River Bridge is a single lane steel and concrete structure which has a load limit of 25 tonnes.

Two possibilities for upgrading the bridge exist, they are:—

- Strengthen the existing structure by replacing the concrete deck and strengthening the steel trusses. Following this work, assessed to cost about \$0.5 million, the load limit could be increased to 30 tonnes but the single lane width would remain. The works involved would cause the closure of the bridge for at least five to six months.
- Construct a new bridge, probably down stream of the existing structure at an assessed cost in the order of \$3.0 million.

Planning for a new bridge is continuing.

FALMOUTH TO CHAIN OF LAGOONS LINK ROAD

PLANNING AND DESIGN

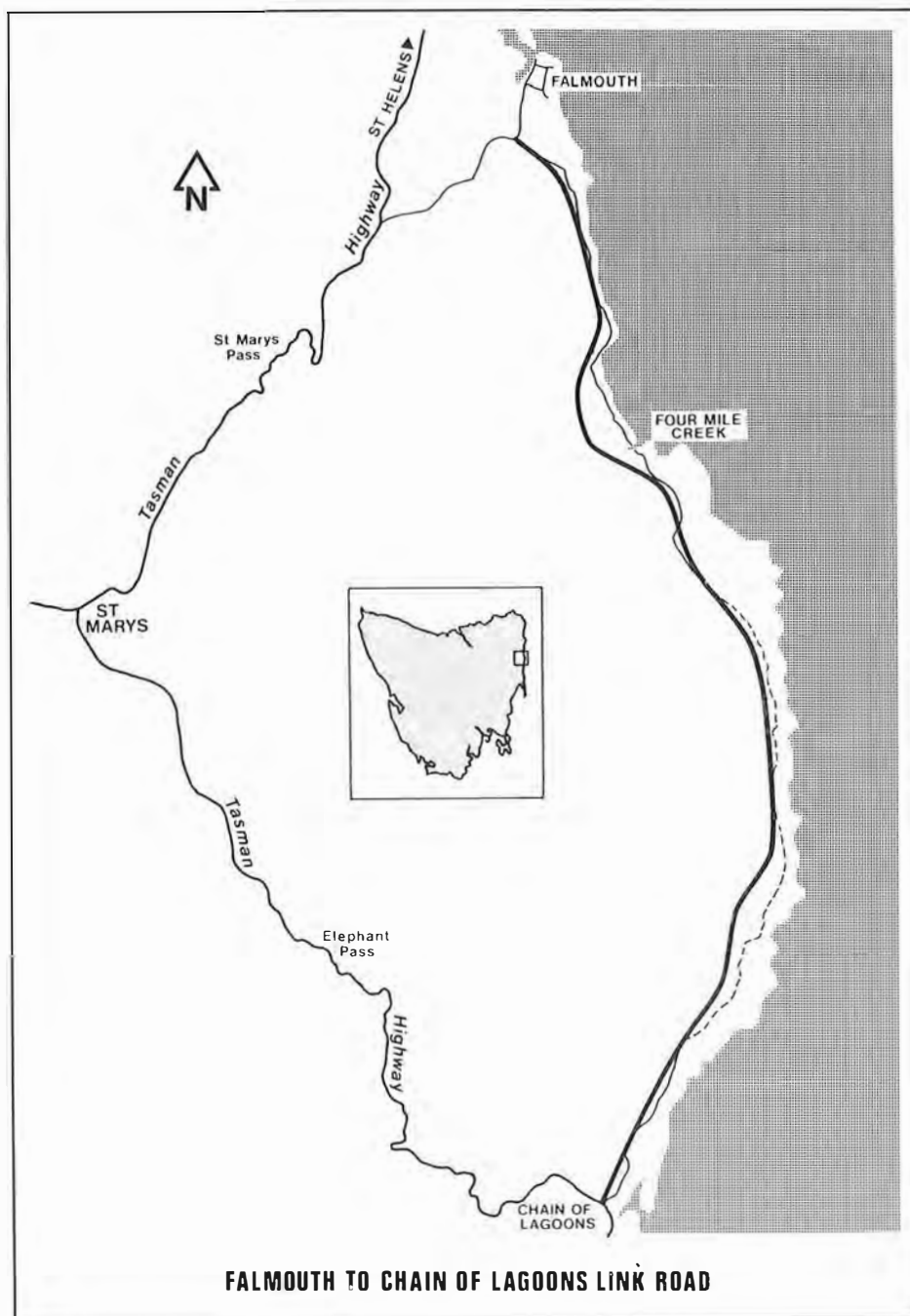
Design was completed from approximately 2 kms south of the Falmouth Road for approximately 15.5 kms to the start of Hughes Road. The design included the Four Mile Creek Deviation. Design is continuing.

CONSTRUCTION

Work on this important link road commenced in January 1985. By the end of June 1985 earthworks and drainage were 80 per cent complete over a 7 kms section between Four Mile Creek and just beyond Cray Drop-in. The work is being carried out by the D.M.R.'s day labour force.

The nature of the work involved lends itself to the extensive employment of heavy machinery. The present program is to complete the drainage and earthworks on this 7 kms section and proceed towards Chain of Lagoons. The rate of progress is subject to the amount of funding provided.

Expenditure in 1984-85 amounted to \$1.742 million.





FALMOUTH—CHAIN OF LAGOONS

WEST TAMAR HIGHWAY

CORMISTON CREEK TO LEGANA

Planning and Design

Following representations to the Minister for Main Roads from the Beaconsfield Municipal Council, an investigation was undertaken into the possibility of a partial ($\pm$ 1 km long) bypass of the central section of Legana instead of the previously designed improvement through the township. It was decided to retain the existing design.

Planning for the reconstruction of this highway was very complex because of the nature of the country that is traversed. On the river side weak river silts exist over a large proportion of the length and extensive testing including the construction of trial embankments was necessary before design and construction procedures could be finalised. On the western side sections are subject to land movements and design investigations have had to take account of these problems.

Final construction drawings were issued for a dual to single carriageway taper across the planned new Cormiston Creek bridge and for a 1.5 km section through Legana from Bridgenorth Road to Bindaree Road. The design of the section between Radio Station 7LA and Danbury Park Drive (South) is almost complete and once constructed will result in the completion of the new single carriageway highway between Cormiston Creek and Legana. The design of the 1.5 km section from Bindaree Road to Rosevears Drive which includes a new bridge over Muddy Creek and the upgrading of several junctions is almost complete.

CONSTRUCTION

Reconstruction of the section of this highway between Danbury Park Drive and Legana commenced late in 1983. In 1984-85 reconstruction and sealing between Cormiston Creek and 7LA was completed. The next section to chainage 4 500 involves the construction difficulties described earlier. On the remaining section reconstruction is virtually complete from chainage 4 500 to Bridgenorth Road. Investigations associated with the duplication of the Cormiston Creek Bridge are in progress.

Expenditure in 1984-85 amounted to \$1.125 million and the total expenditure on this section of highway to 30 June 1985 was \$2.169 million.

The trial installation of drainage wicks in the silt to accelerate the settlement of road embankment is meeting with some measure of success. It is proposed to adopt this technique to construct the carriageway over the river flats between Cormiston Creek and Legana.

MUDDY CREEK TO LANENA

Planning and design

Climbing lanes, with a total length of approximately 4 kilometres, were designed. Following a representation from the Beaconsfield Council, the design of a 1 km extension of the northbound climbing lane to Brady's Lookout is proceeding.

Construction

Work on the four climbing lanes was completed at a total cost of \$0.455 million.

JUNCTION WITH BATMAN DEVELOPMENTAL ROAD (SOUTH)

Planning and Design

Survey has been received and plotted and detailed design is in progress for the upgrading of this junction.

BRIDPORT MAIN ROAD

CEMETERY AND McBEANS HILLS

Planning and Design

This design which was completed this year, incorporates the improvement of two sub-standard vertical curves on hills known as Cemetery Hill and McBeans Hill and improvements to Burnside Road junction.

Construction

The Department commenced pavement rehabilitation of the section of the Bridport Main Road between Bridport and the East Tamar Highway in 1979 and up until 1982 had spent in excess of \$1.0 on this work. It had previously been assessed that this length had the higher priority of the two.

On the Bridport to Scottsdale length, other than routine maintenance which is a continuing activity, two sections totalling 1.7 kms have been reconstructed recently.

The Department provided funds in 1984-85 to commence the removal of the worst of the vertical crests and reconstruct the road in the vicinity of McBeans and Cemetery Hills as road safety improvements.

In 1984-85 work commenced on these improvements to Bridport Main Road which are situated between Listers Lane and Burnside Road on the outskirts of Scottsdale. They will be completed in 1985-86.

Expenditure in 1984-85 amounted to \$0.285 million.

ESK MAIN ROAD

AVOCA TO ORMLEY

Planning and Design

Investigation is in progress for a 12 km deviation to avoid a section of the present road subject to flooding and to eliminate two rail crossings. The project is being carried out using the 'MOSS' system of survey and design.

LAKE LEAKE MAIN ROAD

PLANNING AND DESIGN

A further 10 kms section of design for this road was completed.

CONSTRUCTION

In 1984-85 funds were provided for the continuation of road reconstruction by D.M.R. day labour forces from Lake Spur Road towards the Tasman Highway and the replacement of the Stonehouse Bridge. Funds were also provided for the continuation of reconstruction works by the Glamorgan and Campbell Town Councils.

Work on the continuation of improvement to the road was carried out by the Campbell Town Council on the Western end, Glamorgan Council on the Eastern end and the D.M.R. completed 3 kms of seal west of the 'M' road together with a further 6 kms of earthworks, drainage and 5 kms of sub-base. This brings the length of road sealed between the Midland Highway at Campbell Town and the Tasman Highway to 41.4 kms of the 58 kms length.

Expenditure in 1984-85 amounted to \$1.612 million while the total cost of upgrading this road to 30 June 1985 was \$5.732 million.

LILYDALE MAIN ROAD

PLANNING AND DESIGN

Design for the 4 kms section from the previously designed Underwood Deviation to Lilydale is being undertaken. Included in this length are previously reconstructed sections at Pines Corner and White's Mill Road junction (approximately 1.3 kms).

CONSTRUCTION

In 1984-85 funds were made available for road improvements including contract works on the section from Prossers Forest to the Underwood deviation and for the Pipers River Bridge. Accommodation works on the Underwood Deviation and property acquisitions were also provided for.

PROSSERS FOREST ROAD TO UNDERWOOD DEVIATION

The contract for this section of this road was won by the D.M.R. Construction commenced in October 1984 and was completed within the financial year with the exception of some finishing off and site clearing. Expenditure on this section of road in 1984-85 amounted to \$0.959 million.

PIPERS RIVER BRIDGE

This culvert of three cells, 6 × 6 metres and 29 metres long, was completed on 22 February 1985. The culvert was constructed by a private contractor at a cost of \$0.604 million.

GENERAL

A length of 5.5 kms of this road has now been reconstructed since 1982-83 and 8.53 kms since 1979-80. Expenditure in 1984-85 amounted to \$1.711 million and the Total cost of reconstruction work to 30 June 1985 was \$3.252 million.

POATINA MAIN ROAD

During the past three financial years pavement rehabilitation work has been undertaken on the 12 kms section of this main road between Longford and Cressy. In addition the junction of the Poatina Main Road and the Lake Highway was upgraded in 1984-85.

Expenditure in 1984-85 amounted to \$0.356 million and the total expenditure for the three financial years to 30 June 1985 was \$0.800 million.

MATHINNA SECONDARY ROAD

Reconstruction of the Mathinna Secondary Road commenced in 1979-80 and by the end of 1984-85 virtual completion was achieved. All that remains to finish the 26.1 km length of this road is some final sealing and finishing off work and this will be provided for in 1985-86.

Expenditure in 1984-85 amounted to \$0.121 million and the total cost of reconstruction to 30 June 1985 was \$4.102 million.

NORTH-WEST DISTRICT

BASS HIGHWAY

WYNYARD TO CASSIDYS BOG

Construction

This major project commenced in 1981-82 and was completed in 1984-85. It involved the reconstruction of some 9 km of highway and the work was undertaken by the D.M.R.'s day labour force.

In 1984-85 the work involved landscaping, acquisition of property and shoulder sealing with some finishing off costs.

Expenditure in 1984-85 amounted to \$0.051 million and the total expenditure to June 1985 was \$1.942 million.

WILTSHIRE JUNCTION TO SMITHTON

Planning and Design

Plans have been issued for 15.1 km, of which 11.0 km has been constructed. Design of the final length eastward to Black River (2.3 km) is nearing completion, bringing the total designed length to 17.4 km. the improvement will extend 2.9 km westward from the Irishtown Main Road to bypass Smithton.

Construction

This year saw the completion of the 11.00 km section between the Stanley Highway junction and Irishtown Main Road with a further 6.2 km of improved sealed road being achieved.

Work also commenced on the fencing and clearing of the section between the Stanley Highway and Wiltshire Junction.

Expenditure in 1984-85 amounted to \$1.547 million and the total cost to 30 June 1985 was \$2.601 million.

SMITHTON BYPASS

Planning and Design

A joint report by representatives of Circular Head Council, Transport Department Tasmania, and this Department was completed. The bypass as recommended by this Department from several options, was adopted for recommendation.

LAKE HIGHWAY

GOLDEN VALLEY TURN OFF TO BREONA

Construction

Work continued on the reconstruction of the Lake Highway between the Golden Valley turn off and Breona. Construction of the 5 km section between the turn off to Liffey Falls and the end of the seal of the 1983-84 works was carried out during the year. 1.3 km of this section was completed to a primer seal surface. The work was carried out by the D.M.R.'s day labour forces.

Expenditure in 1984-85 amounted to \$0.684 million and the total cost to 30 June 1985 was \$0.797 million.

Further investigations of the highway between Poatina turn off and the Steppes are being undertaken to determine the extent of rehabilitation required.

MURCHISON HIGHWAY

CAM CLIFFS SECTION

Construction

In 1984-85 funds were provided for the completion of batter works, including property acquisitions, on the Cam Cliffs section of this Highway.

The work was undertaken and completed by D.M.R. day labour forces and involved the removal of some 60 000 m³ solid volume of material from the middle section of the Cam Cliffs to enable widening of the highway through the approximately 780 m length of the cliff area. Most of the extracted material was used as fill by the Burnie Marine Board. The project also required extensive batter work to prevent rocks falling onto the highway. Accommodation works were undertaken as well.

Expenditure in 1984-85 amounted to \$0.378 and the total cost of the project to 30 June 1985 was \$0.398.

DEVONPORT MAIN ROAD

HORSEHEAD CREEK TO VICTORIA BRIDGE

Planning and Design

A design is being developed for the realignment of Devonport Main Road for approximately 1 km to the north of Horsehead Creek. The deviation will run parallel to the railway and will replace a section of road which is prone to frost and ice, and is considered dangerous.

Construction

Reconstruction of some 1.4 km of this section of the Devonport Main Road was achieved by the D.M.R.'s day labour forces in 1984-85 at a cost of some \$0.075 million.

HENTY MAIN ROAD

In 1972 the then Government directed that the track between Zeehan and Strahan be reconstructed to 'highway standards'.

The track resulted from the dismantling of the Tasmanian Government Railway line between Zeehan and Strahan; not unexpectedly the track generally followed the former railway formation.

The then Public Works Department interpreted the Government's requirements as a sealed pavement 5.6 m wide (18 feet) that is the same as the Murchison and Zeehan Highways with a geometric design standard of not less than 60 km an hour.

Because of the tight railway curvature and the deep nature of some of the cuttings it was decided it would be more economic to deviate from the railway formation in two areas via Professor and Henty deviations.

A further deviation (Surtees Deviation) became necessary due to encroaching sand dunes which covered the railway formation. The Lands Department Conservation Officer considered Surtees Deviation might be affected by dune movement in 5 to 10 years but the movement could be arrested by properly organised tree and shrub plantings. At present there seems to be no need to introduce a planting scheme.

Construction commenced in 1974-75 but due to low fund attraction until 1981-82 progress on this 41.5 km road link was slow. Since that time adequate funding has been provided and with the exception of the upgrading of the Henty River Bridge the project was completed in 1984-85.

Earthworks, drainage and subbase in the Henty River to Strahan section were completed by the H.E.C., as an alternate works project for the Gordon below Franklin Dam, in 1984.

Works in 1984-85 by D.M.R. direct labour forces included the completion of the section from the Henty River to Strahan, the reconstruction in Strahan to Harvey Street and Site Investigations for the upgrading of the Henty River Bridge.

Expenditure in 1984-85 amounted to \$1.472 million and the total cost of the new road link to 30 June 1985 was \$7.804 million.

MERSEY MAIN ROAD

RAILTON MAIN ROAD JUNCTION TO SPREYTON

Planning and Design

Final plans for the section from Ballahoo Creek deviation to Railton Main Road junction were completed. The design of the section from Ballahoo Creek to Spreyton has been deferred because of other priorities.

Construction

In 1984-85 funds were provided for the construction of a section of this road from Railton Main Road to Ballahoo creek and for the completion of roadworks at Ballahoo Creek which were commenced in 1983-84.

The work was undertaken and completed, with the exception of some finishing off work of the former section, by the D.M.R.'s day labour forces.

Expenditure in 1984-85 amounted to \$0.333 million and total expenditure to 30 June 1985 was \$0.528 million.

MOLE CREEK MAIN ROAD

DELORAINÉ TO NEEDLES

The reconstruction of this section of road was commenced in 1983-84 by a private contractor. In 1984-85, due to mutual termination of the contract and with the approval of the Commonwealth Minister for Transport, the reconstruction was completed by the D.M.R. day labour force.

The work involved the reconstruction of an 8 km length of road together with relocation of services and property acquisitions.

Expenditure in 1984-85 amounted to \$1.205 million and the total cost to 30 June 1985 was \$2.322 million.

SHEFFIELD MAIN ROAD

PLANNING AND DESIGN

The design of a 3 km section from Redwater Creek in Railton towards Sheffield is being undertaken by a firm of Consulting Engineers. Survey has been received and plotted for the design of a deviation at Lowes Creek; preliminary design is in progress. Plans were received from the Devonport City Council for their planned upgrading of a 0.5 km section of the road in Spreyton. This is the second stage of a 4 year program towards which the Department is making a financial contribution.

CONSTRUCTION

In 1984-85 the Devonport Council continued the planned upgrading of the Sheffield Main Road at Spreyton. This work will be continued in 1985-86.

The D.M.R. day labour force commenced curve improvements on the section between 5.4 km and 6.0 km from Redwater Creek.

Expenditure in 1984-85 including Consultants fees for design, amounted to \$0.236 million.

WEST COAST LINK ROADS

GUILDFORD TO HAMPSHIRE LINK ROAD

The new Guildford—Hampshire Road will be located east of the existing Murchison Highway and will bypass the Hellyer Gorge section of that Highway. The new route is approximately 27.5 km long and will link the Fingerpost on the Murchison Highway with Hampshire. The new route from Burnie to the Fingerpost via Ridgely and Hampshire is 10.5 km shorter than the existing road via Somerset and the Hellyer Gorge.

The new road will have a 6.0 m wide pavement with 1.0 m sealed shoulders and will provide a high standard alignment.

The construction of the new road will include bridges over the Hellyer and Wey Rivers. The D.M.R. will design and construct these bridges.

PLANNING AND DESIGN

Design is complete from the Murchison Highway to just north of the Hellyer River, a distance of approximately 9.6 km, and for 8 km south of the town of Hampshire. Design for the remaining 11.5 km is in progress. The design is being carried out by three firms of Consultant Engineers.

CONSTRUCTION

Hellyer River Bridge

This bridge consists of 2 spans of steel girders acting compositely with a reinforced concrete deck, and supported by a substructure consisting of reinforced concrete abutments founded on steel piles and a single column pier on a spread footing. Its overall length and width are 66 m and 9.2 m respectively.

Work started on site in March 1985 and steel for the 8 girders, amounting to 128 tonnes, has been received from BHP. Fabrication of the steelwork is expected to commence early in the new financial year.

ROAD CONSTRUCTION

Work commenced on the project this financial year. Plans were available for a section of about 9.0 km from the Murchison Highway end and for about a 7 km section from the Hampshire end. Preparation for earthworks and drainage were carried out over these sections. The works were scaled down due to the very wet and boggy conditions towards the end of the financial year.

Expenditure on this link road in 1984–85 amounted to \$1.559 million.

QUE RIVER TO LEARY'S CORNER LINK ROAD

The new tourist road to be constructed between the Murchison Highway near the Que River and Leary's Corner on the Cradle Mountain Tourist Road was designed by Consultants for the D.M.R. following the Gordon below Franklin Dam decision when it was anticipated that alternate works would be required for the H.E.C.'s workforce. The decision to proceed with the Henty-Anthony and King River power schemes overcame this foreseen need and the road was not proceeded with at that stage.

The road is located close to the new H.E.C. transmission line across the Mayday Plains and the Vale of Belvoire. A lower standard section of road with grades of 1 in 8 will be necessary to cross the Black Bluff Range. The project is 27 km long.

The Murchison Highway to Cradle Mountain Tourist Link Road will provide a link between Devonport and the West Coast either via the Wilmot Main Road and Cradle Mountain Tourist Road or via the Sheffield Main Road, Claude Road, Cethana Tourist Road and Cradle Mountain Tourist Road. These new routes are about 41 km shorter than the existing route via the Bass and Murchison Highways.



GUILDFORD—HAMPSHIRE LINK ROAD



CRADLE MOUNTAIN LINK ROAD



CRADLE MOUNTAIN LINK ROAD
Que River to Learys Corner

PLANNING AND DESIGN

Design of this 27 km link road has been undertaken by consulting engineers.

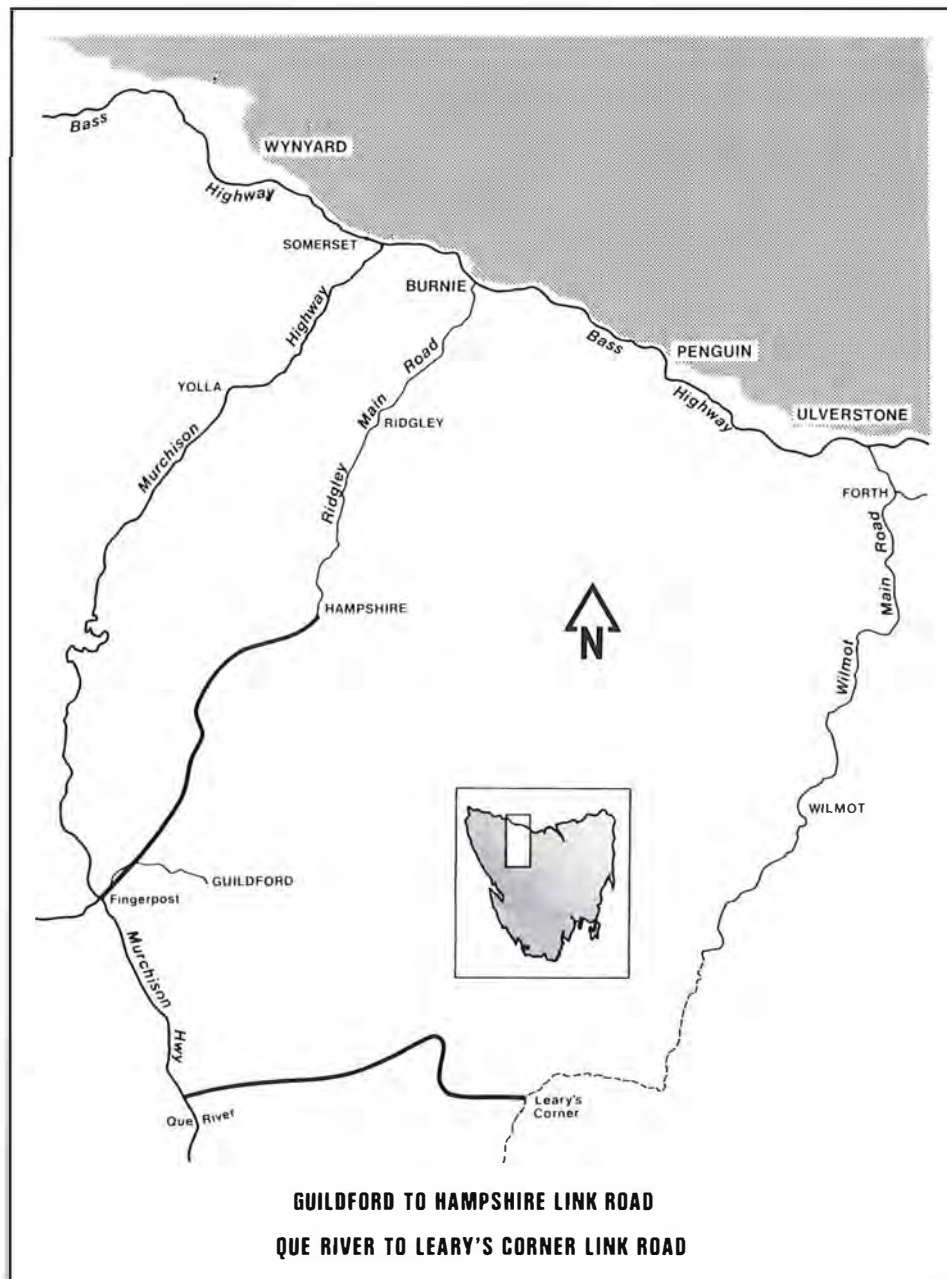
The bulk of the project was designed prior to 1984-85, however a design variation 5.7 km in length has been carried out in 1984-85 also by consultants.

The variation has been necessary to avoid the Hellyer Mineral Deposit which is shortly to be developed.

No further plans should be necessary for this link road.

CONSTRUCTION

Work commenced on the project this financial year. Clearing from Leary's Corner (chainage 26 000) to chainage 9 500 is virtually completed. Earthworks and drainage were carried out over sections between chainage 8 500—14 000 and chainage 20 000—26 000. Some sections were very boggy but construction traffic can get through. Approximately 6 km of the link road were under construction in 1984-85. An amount of \$2.249 million was expended in that financial year.



SMITHTON TO ZEEHAN CORRIDOR

The link road will provide an alternative route for tourists and tour operators from the North West to Zeehan and Strahan, which would pass through the far North West Regions of the State. Opportunities will exist for promotion of tourist facilities at Arthur River, Balfour and Corinna and expansion of the scenic launch excursions from Arthur River and Corinna.

The project will link the Blackwater Road with the new Heemskirk Road north of Zeehan on the West Coast.

MARRAWAH TO HEEMSKIRK ROAD

Planning and Design

Planning for this new road is being undertaken. The route that has been adopted is from Marrawah to Heemskirk Road by way of Arthur River, Couta Rocks, Rebecca Road, Balfour, a new line to Corinna and a new line to Heemskirk Road. The total length is approximately 120 km and much of this is through virgin country. Initial planning is being made on aerial mapping to scale 1:5000. From these maps and site inspections, a route is being adopted for detailed ground survey.

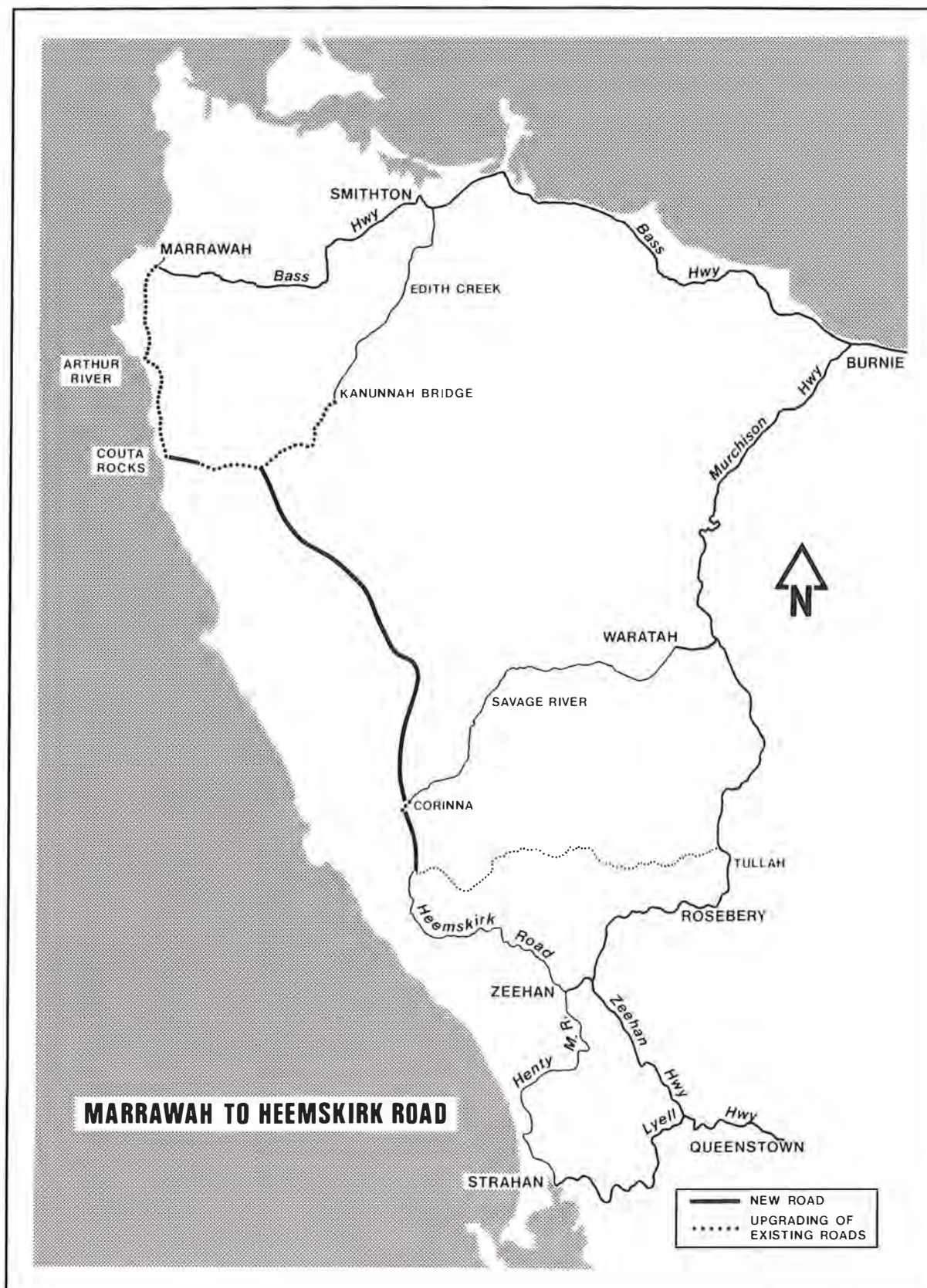
Final design will then be undertaken using the plots of this detailed ground survey.

Existing roads that will form part of the route and will require improvement are the Arthur River Road, Temma Track to Couta Rocks, the Forestry Commission's Rebecca Road and part of the Blackwater Road, and a small part of the Corinna Developmental Road.

A major bridge will be required at the Pieman River, and small bridges at the Lindsay, Donaldson and Savage Rivers.

Road designs for the sections Rebecca Road to Couta Rocks and Blackwater Main Road to Balfour are being prepared.

An amount of \$0.218 million was expended in 1984-85 for Consultants fees associated with the feasibility study on the road corridors.



UNCLASSIFIED ARTERIAL ROADS

(Council Controlled Roads)

SOUTH-EAST DISTRICT

GLENORCHY CITY COUNCIL

The D.M.R. has provided funding to assist the Glenorchy City Council in carrying out nominated projects required by the Derwent Region Transportation Study. In 1984-85 the two projects listed below received assistance.

EADY STREET/BOWDEN STREET CONNECTION

An amount of \$0.240 million was provided towards the cost of this project in 1984-85. The roadworks are being undertaken by the Glenorchy City Council. The D.M.R. has now granted \$0.440 million for this work.

MAIN ROAD/DERWENT PARK ROAD INTERSECTION

The upgrading of this intersection was undertaken by the Glenorchy City Council with the D.M.R. providing \$0.140 million towards the cost:—

MUNICIPALITY OF NEW NORFOLK

GLENORA ROAD

Since 1978-79 the D.M.R. has provided grants to the New Norfolk Council to assist the upgrading of the Glenora Road which is a Council responsibility.

A grant of \$0.050 million was made in 1984-85. The total assistance since 1978-79 amounted to \$0.461 million.

NORTH-EAST DISTRICT

LAUNCESTON CITY COUNCIL

ROAD NO. 3 ROYAL PARK INTERCHANGE

The State Government decided to fund this road link in 1983. The purpose of the road is to provide access to and from the major parking areas in this section of Launceston via Cimitiere Street to the Bathurst Street/Wellington Street Couplet.

The Launceston City Council is being paid to supervise the construction work which commenced in 1984-85.

The work is being undertaken by a private contractor and is largely complete. Expenditure to 30 June 1985 amounted to \$0.435 million including property acquisition costs.



COLES BAY TOURIST ROAD

LOCAL ROADS PROJECTS

Classified Local Road Construction

SOUTH-EAST DISTRICT

TUNNACK MAIN ROAD

AT OATLANDS

Planning and Design

Design for a 0.9 km deviation has been carried out.

Construction

The deviation of the Tunnack Main Road in Oatlands, made necessary by the opening of the Oatlands bypass on the National Highway, was commenced in 1984-85.

Expenditure in 1984-85, including property acquisitions, amounted to \$0.209 million.

NORTH-EAST DISTRICT

COLES BAY TOURIST ROAD

PLANNING AND DESIGN

Design for reconstruction has been extended by 8 km to 15 km from Coles Bay.

CONSTRUCTION

The continuation of the reconstruction north of Coles Bay was accelerated in 1984-85 with the provision of considerable additional funding over previous financial years.

In 1984-85 work on the improvement to the road continued from the Coles Bay end. The total length of seal from Coles Bay is now 8.3 km and a further 4 km has been completed to sub-base level. Continuation and extent of the improvement towards the Tasman Highway will depend on funding allocation in 1985-86.

Expenditure on this Road in 1984-85 amounted to \$1.009 million and the total expenditure for the last 3 financial years to 30 June 1985 was \$1.390 million.

NORTH-WEST DISTRICT

CRADLE MOUNTAIN TOURIST ROAD

PLANNING AND DESIGN

Design of the section west from Weaning Paddock Creek towards Leary's Corner was completed.

CONSTRUCTION

The reconstruction of this road from Lehman's Creek to Leary's Corner continued in the 1984-85 financial year and included bridgeworks at Weaning Paddock Creek, Twin Creek and Iris River.

Both the Iris River and Twin Creek culverts were completed and deck work is in progress on the Weaning Paddock Creek culvert.

A further 3 km of road was completed and sealed and earthworks and 85 per cent of the pavement were completed for a further 3 km. Roadworks were then temporarily suspended to allow for the completion of the culvert construction.

Expenditure on this project in 1984-85 amounted to \$0.810 million and the total cost for the last 3 financial years to 30 June 1985 was \$2.220 million.

UNCLASSIFIED LOCAL ROADS

MAJOR CONSTRUCTION PROJECTS

SOUTH-EAST DISTRICT

FLAGSTAFF GULLY LINK ROAD

PLANNING AND DESIGN

Clarence council were asked to undertake the design for the Link Road in September 1984 on behalf of the Department. The road, when constructed, would be handed over to the Council as its responsibility for maintenance. The design was completed to enable construction activities to commence in April, 1985 and complete the work in the 1985-86 financial year. The Link Road forms a leg of the Mornington Interchange which is associated with the Bellerive bypass. The Flagstaff Gully Link Road was a proposal of the Derwent Regional Transportation Study report.

CONSTRUCTION

The D.M.R. is carrying out the project by day labour and work commenced in late April 1985. It consisted mainly of preliminaries, drainage and preparation for earthworks. Completion of the project is programmed to coincide with completion of the Mornington Interchange.

Expenditure in 1984-85 amounted to \$0.207 million.

GLENORCHY CITY CENTRE BYPASS—STAGE 1

This project involves the construction of a 2 lane access road extending from main road near Chapel Street, passing east of the Glenorchy shopping centre to Elwick Road. The length of the bypass would be approximately 0.9 km.

Funds were provided in 1984-85 for the acquisition of property associated with this project by the Glenorchy City Council. Expenditure amounted to \$0.297 million.

JORDAN RIVER BRIDGE AT BRIGHTON

Work started on this 8 span, 103 m long bridge in July 1984. The new bridge is being built alongside the existing old timber bridge which is subject to load restrictions. Completion is expected in late February 1986.

The superstructure consists of pretensioned concrete beams with insitu concrete topping and 50 mm thick asphalt surface. The overall width or 11.1 m includes a 2 m footpath.

The substructure consists of reinforced concrete abutments and the seven piers each consist of 4 circular columns with crosshead supported on a single spread footing.

Expenditure on this bridge in 1984-85 amounted to \$0.312 million.

ROAD CONSTRUCTION DIVISION

ROAD MAINTENANCE

Although the standard of maintenance has been at an acceptable level during the year a return to more normal wetter weather conditions has shown up weakness in some of the older pavements.

An increase in the annual cost of roadside maintenance to dual carriageways in urban areas has been noted.

BITUMINOUS SURFACING

Details of the bituminous works undertaken are shown in Annexure C.

LANDSCAPING

Contract works won and landscaped by the Department were the Bridgewater bypass and the Launceston Southern Outlet.

Other works completed were Bass Highway, Wivenhoe to Chasm Creek, Bass Highway Flowerdale to Boat Harbour, Hobart Southern Outlet, Davey Street Extension and the West Tamar Highway, Cormiston Creek to Legana.

Landscaping designs have been completed for the Kingston bypass and the Algona Main Road.

INVESTIGATION AND MATERIAL TESTING

Route feasibility and design investigations were carried out on the following projects:—

Midland Highway—Strathroy to Breadalbane

Bass Highway—Prospect bypass

Forth River to Ulverstone

Black River Deviation

Tasman Highway—Falmouth to Chain of Lagoons

Fingerpost Road to Black Charlies Opening

Davey Street Extension

West Tamar Highway—Legana bypass

Lilydale Main Road—Underwood Deviation

Investigations were undertaken for the foundations of thirteen bridges and overpasses and four slipways and marine structures. Eight landslips and batter failures were investigated as well as five projects of the Department of Construction.

PLANNING AND DESIGN DIVISION

GENERAL ITEMS

GUARD RAIL/SAFETY BARRIERS

The fifth draft of the NAASRA Guide to Safety Barriers was produced in conjunction with representatives from D.M.R. (N.S.W.), Highways Department (S.A.) and A.R.R.B.

STANDARD DRAWINGS

During the year, draft new standard drawings for drainage pits, kerb and gutter, open channels, guard fence, guide-posts, delineators, retaining walls, and batter treatment were prepared and circulated to relevant sections of the Department for review. This totalled 30 drawings. Those drawings for drainage pits, kerb and gutter and open channels (13 drawings) have subsequently been approved and introduced into current designs.

SPECIFICATION FOR THE GEOMETRIC DESIGN OF RURAL ROADS

A draft dated May, 1985 has been prepared for review in the light of comments received following the publication of the current edition dated November 1983.

COMPUTER DESIGN

Further investigation has been carried out as to the suitability of the 'MOSS' system of survey, plot and design computer program. A detailed report and recommendation prepared by a Departmental Committee has been approved and a submission will now be forwarded to the State Computer Policy Advisory Committee for their approval.

Further computer management work has been carried out for:—

- (1) Adapting 'MOSS' surveys to facilitate their input into the 'Trics' design system.
- (2) Investigation into implementing the Road Design Division plan indexing system on computer.

DEPARTMENTAL DISPLAYS AND EXHIBITIONS

The year saw a considerable increase in Departmental displays and exhibitions for which the majority of material was prepared by the Division drawing office staff. For the first time exhibits publicising the Department's activities were displayed at the Launceston Show and the Royal Hobart Show. The policy is now for a yearly commitment and improvements in the methods of presentation are being considered.

The A.R.R.B. conference in Hobart in 1984 entailed considerable drafting staff assistance in preparing display material and in liaison with the other State Road Authorities in arranging their displays.

It is considered that the Department's display compared more than favourably with those presented by the other States.

ENVIRONMENTAL STUDIES

Preliminary environmental investigations are undertaken for many of the road projects within the Division and subsequently a number of these are formally examined by the Tasmanian Department of the Environment.

The Federal Government continues to rely upon the State Department of the Environment to ensure that its own environmental requirements are satisfied.

Noise continues to be a major concern to the Department of the Environment and the necessity and extent of construction of noise control structures such as earth mounds or walls must be considered for all new urban and some rural projects.

Some projects have required the engagement of specialist consultants to assess such matters as archaeological sites, aboriginal sites etc.

Environmental Impact Study reports were provided to the Department of the Environment for the following projects:—

- Bass Highway, Blythe River to Penguin
- Bellerive bypass
- Tasman Highway/Davey Street Extension
- Falmouth to Chain of Lagoons Link Road
- Guildford to Hampshire Link Road
- Que River to Cradle Mountain Link Road
- Smithton to Zeehan Link Road

Other projects were jointly agreed as not requiring an Environmental Impact Statement to be prepared.

TRAFFIC SERVICES

TRANSPORTATION STUDIES

Launceston

An assessment of various connections to the Launceston Southern Outlet, in the Kings Meadows area, was completed by a Consultant to the Department. In addition an origin and destination survey of patrons to a 'Rock Festival' held at the Launceston Velodrome, was conducted. These surveys will enable the Department to build a more comprehensive pattern of trip demand on the new network in Launceston.

The Department continues to assist the Hobart City Council and the Transport Department Tasmania with the Hobart Central Area Survey. Testing of alternative road proposals recommended by the Derwent Regional Transport Study is the last phase of the project. This work has now been completed by the study consultant.

TRAFFIC COUNTING

The upgrading of the road data base has been completed. The final programming of this data base has just been completed to a stage which will enable computer printout of vehicle volume data in a form suitable for publication. The normal collection of traffic volume data has been augmented by vehicle classification and vehicle speed data. This additional collection of data has been made possible by the purchase of recording machines designed for this purpose.

ROAD DIRECTION SIGNING

Due to a shortfall of available funds the signing of Local Roads has not been completed. It is anticipated that all Local Roads will be completed during 1985-86.

The Hobart Metropolitan Area new direction signing is being implemented. The completion of the Hobart Area together with the Launceston Metropolitan Area is expected to be undertaken in 1985-86.

TOURIST SIGNING

The Department remains heavily involved with tourist orientated signing. The Tourist Signs Advisory Council was disbanded in November 1984 with a view to creating a new expanded Council which is shortly to have its inaugural meeting. The Department has taken the first step in the removal of illegal signs from within the road reservation of the State Proclaimed Road Network. In May 1985 the District Engineers were instructed to select several routes in their areas and to request the owners of any illegal signs to remove them within 21 days. If the signs are not removed then it is proposed to take action through the Director of Tourism.

The effect of this action on the continuing proliferation of illegal signs will be closely monitored.

VEHICLE PERMITS

A total of 3 549 permits were issued for the movement of overweight and or overdimensional vehicles during the year. This compares with 3 180 permits issued during 1983-84.

SCIENTIFIC COMPUTER SECTION

Early in the year a decision was made to discontinue use of 8-bit microcomputers in favour of the industry de-facto standard—16-bit, IBM compatible machines. The Department has since acquired eight of these computers for use in situations where a stand-alone computer can be dedicated to the performance of a specific task. The Right of Way applications have been transferred to one of these machines, the others will be used in the district offices in support of administrative and project-control tasks.

An extra cartridge drive unit and a magnetic tape drive have been installed on our communications node with resultant improvement in service to the road design function. Plot files are now transferred from the Transport Department computer to the node, loaded to magnetic tape and carried to the Lands Department plotter. Back-up and retrieval of design data is now carried out at the node.

Programs have been written to transfer data directly to our node from a variety of survey instruments including the new total stations. From there it is transmitted to Melbourne for processing at the CEANET MOSS facility. Key-punch operations, with attendant delays and errors, are being phased out.

RIGHT OF WAY CONTROL

The Right of Way matters have again covered a broad spectrum of topics associated with the planning and protection of the State Road System.

There has been a continuing involvement in the field of land use planning and in the relationship with highway planning and operation.

This interrelationship is still not fully accepted by many authorities.

Where development applications are referred to the Department advice is provided regarding siting, access and other highway planning issues to enable the responsible authorities to properly consider all proposals.

BRIDGE DIVISION

BRIDGE DESIGN

The more important designs completed were:—

NATIONAL ROADS

North-West District

Bass Highway

Meander River Bridge on the Deloraine bypass.

Turners Beach Overpass on the section Forth River to Ulverstone bypass.

Claytons Rivulet Culvert on the same section of Highway.

URBAN ARTERIAL ROADS

South-East District

Olinda Grove Overpass on the Hobart Southern Outlet Road.

North-East District

Thistle Street Footbridge on the Glen Dhu Corridor.

The more important designs in hand but not completed were:—

NATIONAL ROADS

North-West District

Railway underpass on the Deloraine bypass.

URBAN ARTERIAL ROADS

South-East District

Mornington Overpass on the Bellerive bypass.

RURAL ARTERIAL ROADS

North-East District

North George River Bridge on the Tasman Highway.

North-West District

Hellyer River Bridge on the Guildford—Hampshire Link Road.

Preliminary design studies carried out were:—

NORTH-WEST DISTRICT

Rural Arterial Roads

King River Bridge on a deviation of the Lyell Highway.

SOUTH-EAST DISTRICT

Unclassified Local Roads

Lune River Bridge on the Catamaran Road (for Esperance Council).

HYDRAULICS

LAUNCESTON FLOOD PROTECTION SCHEME

The Department commissioned an investigation by the Water Research Laboratory of the University of New South Wales into flood problems in the Evandale area. A report on the investigation was received in July 1984. The report concluded that there was no likelihood of floods from the South Esk River overflowing into the North Esk River at the considered danger point, the Evandale Saddle. A dam built on the Saddle by a private landowner is to be investigated by the Department. Cost of the investigation amounted to \$25 021.

Works listed in the 1984-85 Maintenance and Capital Works Program submitted by the Launceston City Council were estimated to cost \$200 000 and this amount was provided by the State Government. However, an expenditure of only \$53 161 was achieved. This expenditure was incurred in topping up (compensating for subsidence) of the Kings Wharf, Scottsdale, and Mowbray Levees.

The Department continued to provide engineering liaison and audit of expenditure of State Funds for the capital and maintenance works on the flood protection system undertaken by the Launceston City Council.

ROAD DRAINAGE AND FLOOD PROTECTION

The use of Consultants in the design of roads and associated drainage provisions continues to increase and some 73 km of their road design was submitted for examination.

Also site investigations and hydraulic reports were prepared for some 71 km of roads designed within the Department.

Recommendations, following extensive investigations, were prepared for ongoing design and construction of major urban road schemes such as the Glen Dhu Corridor, Launceston, the Davey Street Extension, Hobart and the Hobart Eastern Outlet (Bellerive Bypass.)

Three major bridges were investigated. The hydraulic requirements for the Hellyer River Bridge, on the Guildford Link Road, were determined for incorporation in the road design being prepared by Consultants. For the same road design, the Consultant's hydraulic design recommendations for the Wey River Bridge were checked.

The hydraulic requirements for the Milford Bridge and causeway approaches on the Royal George Road were confirmed.

Hydraulic reports were prepared for ten minor bridges and a further twenty-nine reports and recommendations made for miscellaneous matters ranging from erosion protection to complaints made by the public.

OTHER MARINE WORKS

POLICE ACADEMY AT ROKEBY

Investigations and a preliminary design drawing and cost estimate were prepared for a boat launching ramp and jetty facility on the adjacent foreshore of Ralphs Bay.

Complete with a carpark, the whole facility was estimated to cost some \$115 000.

LAKE ST CLAIR TOURIST CENTRE

The National Parks and Wildlife Service commissioned the Department to design a facility at Cynthia Bay, required for a tour-boat service on the lake and for the launching of boats. Following a preliminary survey and on-site discussions, a number of matters were raised which required resolution by the Service before action could be taken on the preparation of a design and cost estimate. This work is expected to be resumed early in 1985-86.

BRIDGE MAINTENANCE

GENERAL

A gang of five men was transferred from Bridge Construction to Bridge Maintenance in December 1984 and worked under Head Office supervision in the South-East District until the end of the financial year.

BRIDGEWATER BRIDGE

A further two approach spans were repainted, bringing to six the number of spans on the southern side of the lift spans to be painted since the program began in 1982-83. Repainting is programmed to continue in the coming year.

New navigation lights were erected on the lift span. These lights are similar to those on the Tasman and Bowen bridges giving uniformity of navigation signals to the three navigable Derwent crossings.

Lift span openings for the year amounted to 603. These were required for:—

- Newsprint Vessels—459
- Ferry and Cruiseboats—28
- Private Pleasure Craft—107
- Maintenance purposes—9

These figures show an increase of 47 over the previous year.

TASMAN BRIDGE

The bridge maintenance gantry was overhauled and made ready for Department of Labour and Industry certification preparatory to a comprehensive below deck level inspection programmed for 1985-86. Works of a minor nature were carried out. These included repairs to the soffit of the Rosny Hill overpass which has been repeatedly damaged by overheight loads approaching the Tasman Bridge, and the continuing installation of improved fasteners for securing the footway plates. The Tasman Bridge Liaison Committee has yet to finalise deliberations on the type of current monitoring equipment to be installed at the bridge. It is now expected that tenders for the supply and installation of this equipment will be finalised this year.

DENISON CANAL SWING BRIDGE

The swing span of the bridge was completely repainted during 1984-85, for the first time since the bridge was constructed in 1965.

A further 150 m section of the eroded embankment has been stabilised by means of a rock berm placed to prevent further erosion. This treatment appears to be extremely successful in controlling the erosion and it is anticipated that the entire length of the canal banks will be protected in the near future.

Vessels passing through the canal in 1984-85 totalled 1 209, a decrease of 93 on the previous year.

SORELL CAUSEWAY

The bridge deck was resealed following the installation of steel plates covering the deck joints. Other programmed maintenance works were again deferred owing to the brief time that labour was available during the year.

BOWEN BRIDGE

All outstanding works under the Contract have been satisfactorily completed. Other work undertaken includes sealing the walkway surfaces, epoxy injection and sealing of minor cracks in concrete at the mid span joints and the erection of a timber fence at the eastern abutment.

BRUNY ISLAND FERRY TERMINAL

Repairs were effected to the damaged fender plates at Roberts Point and an emergency system for manually raising and lowering the ramps was installed at both the Roberts Point and Kettering terminals.

Demolition of the old Barnes Bay Terminal was completed in 1984-85.

PAINTING AND REPAIRS GENERALLY

The following minor maintenance work was carried out:—

- Derwent River Bridge at New Norfolk,
Fences repainted.
- Abbotsfield Pedestrian Underpass,
Construct retaining walls and erect horse barriers.
- Bridge No. 2967 on Boyer Road near New Norfolk,
Replace demolished concrete fences.

JETTIES, SLIPWAYS AND FISHING FACILITIES

GENERAL MAINTENANCE

An amount of \$92 053 was expended on maintenance and minor improvement to State Jetties and State Slipways.

Those facilities incurring the greatest expenditures were:—

	\$
Bruny Ferry Berth	8 512
Southport Jetty	7 350
Darlington Jetty	6 874
New Norfolk Jetty	7 588
Margate Jetty	18 663
Nubeena Jetty	4 251
Stanley Fishermen's Dock	4 463
Woodbridge Jetty	5 619
Dennes Point Jetty	3 861
Kettering Jetty	3 998
Opossum Bay Jetty	3 000

Expenditure not exceeding \$2 000 accounted for the balance of \$17 866.

MAJOR CONSTRUCTION WORKS

BICHENO LANDING STAGE

Works on widening and extending were commenced in 1983-84 and were completed at a total cost of \$55 796 in 1984-85. The widening provides improved access for light trucks moving fish catches, while the extension improves the facility where deeper draught vessels need to berth.

PIRATES BAY JETTY (near Eagle Hawk Neck)

Work on a new improved jetty was well advanced at the end of 1983-84. Of larger proportion than the original, the new structure provided additional berthing space and better access for motor vehicles. It was completed in 1984-85 at a total cost of \$128 927.

BRID RIVER JETTIES

A 100 m extension of the right hand jetty was commenced during 1983-84 and completed at a total cost of \$136 516 in 1984-85.

Included in these costs was the demolition of some 75 m of the 130 m long left hand jetty. The 55 m remaining of this Jetty will be demolished when it is no longer safe to use.

BOOMER BAY BOAT RAMP (near Dunalley)

Site investigations were carried out, a design was prepared and construction is now well advanced for a facility complete with a boarding pier and an area for parking vehicles. The completed ramp will have a width of 4.5 m, a gradient of 1 in 8 and will be 1.5 m below low-water at the seaward end. Estimated to cost \$90 000, and amount of \$68 792 has already been expended.

COUTA ROCKS BOAT RAMP (West Coast)

Site investigations were carried out and a design prepared for a ramp complete with a boarding pier, a prepared area for parking of vehicles, and an upgrading of the access track. However, because of the subsequent high estimate of cost of construction, a revision of the design is necessary before construction proceeds.

LADY BARRON SLIPWAY (Flinders Island)

An improved vehicular access, onto the slipway work area, was provided in conjunction with foreshore roadworks carried out by the Lands Department. The D.M.R. contribution was \$6 000.

Electric power and lighting is now provided from the town supply. This source of electricity supersedes the petrol-driven alternator installed at the slipway some eight years ago.

Fresh water to the slipway was provided by connection to the recently installed town supply.

A flood-light was installed for the emergency night-time slipping of vessels.

Total cost of all works was \$10 695.

ST HELENS POINT LIGHT

Originally powered by bottled acetylene gas, this light was converted to solar power at a cost of \$4 238.

BRUNY ISLAND FERRY TERMINALS

The original (30 year old) Barnes Bay terminal was demolished but the original Kettering terminal was retained for use by the Transport Department for ferry maintenance and as a lay-up berth.

Routine maintenance on the new terminals at Roberts Point (Bruny Island) and at Little Oyster Cove (Kettering) incurred an expenditure of \$8 500 approximately. A spare brake motor, for emergency use, was purchased at a cost of approximately \$4 500.

Consultants were commissioned to report on means of providing easier berthing under unfavourable weather conditions. The report, which will cost approximately \$4 500, has now been received and is in the course of assessment.

FISHING PORTS UPGRADING

CURRIE HARBOUR BREAKWATER PROTECTION

A feasibility study was carried out by Consultants for the proposed breakwater protection of the local fishing fleet. The Consultants presented two reports dated January 1984, and March 1984. While these reports considered the cost effectiveness of various design concepts, the effect of ocean long wave swell was not addressed.

A second opinion was obtained from Professor D. Foster and, as a result, a gauge was installed on the Currie Wharf to measure and record long wave swell. The results were forwarded to Professor Foster at the Water Research Laboratory of the University of N.S.W. for analysis and with a view to the engagement of that organisation to model test various breakwater proposals.

KETTERING PORT DEVELOPMENT PLAN

Consultants were employed to undertake a study for the development of the Port of Kettering as a whole. Consideration was to be given to the possible future provision of facilities for commercial fishermen operating out of Little Oyster Cove. The study reached the interim report stage in 1984-85. It will cost \$5 000.

LADY BARRON PORT IMPROVEMENTS

Improvements to the Lady Barron wharf were commenced in 1983-84 with the purpose of providing better berthing facilities for fishing vessels. This work was completed early in 1984-85. In addition a system of navigation aids for the Eastern approach to the port was installed concurrently with the wharf improvements.

Total cost of the wharf improvements amounted to \$237 400 and the cost of the navigation aids totalled \$77 625.

STANLEY FORESHORE WHARF

To enable the berthing and unloading of deep draft trawlers a 30 m section of the Circular Head Marine Board's wharf at Stanley required extensive rehabilitation. A new concrete deck was provided on the existing timber substructure and a new fendering system was installed.

The work was commenced during 1983-84 and completed in 1984-85 at a cost of \$131 482.

STANLEY FISHERMEN'S DOCK UPGRADING

To facilitate the operation of larger fishing vessels now based in the Port of Stanley it became necessary to dredge the existing dock and to provide a 150 m long wharf across the northern (foreshore) side of the dock. The wharf will consist of driven sheet piling anchored back into a compacted backfilling which also will form an extensive area for servicing the berthed vessels. The design of a 22.5 m extension of the existing unloading berth at the eastern end of the dock is also in progress. A new boat launching ramp will be provided.

The estimated total cost of the proposed works was \$980 000.

In 1984-85 corrosion resistant sheet piling was purchased and driving commenced. Expenditure on this project amounted to \$306 427.

STANLEY BOAT LAUNCHING RAMP

Replacement of the existing boat launching ramp, located with in the Fishermen's Dock, was made necessary by the planned construction of the new wharf. A suitable site was selected adjacent to the Old Town Wharf.

A site survey was carried out and a design prepared for a ramp having a width of 4.5 m on a gradient of 1 in 10 and extending to low-water. Boarding will be effected from a series of stepped landings beside the ramp which will be protected by a rock fill breakwater.

Work was commenced in advance of the closure of the existing ramp.

ST HELENS

Georges Bar Barway—Breakwater Walls Studies

Investigations, carried out in 1983-84, established the feasibility of the construction of training walls which would provide a safe navigation channel through the hazardous barway.

Consultants for the study, have subsequently constructed a model of the barway and inner delta from which the optimum configuration of channel training works will be determined. Calibration was carried out and testing commenced.

Expenditure in 1984-85 was \$130 727.

Georges Bay Training Walls

This wall has been progressively constructed and extended since 1969 and has proved successful in establishing a stable navigation channel in the inner delta behind the Georges Bay Barway.

Following each extension of the wall, an extensive natural beach has built up on the seaward side to form a shallow lagoon which became recognised as a potential health hazard. The lagoon was filled in at a cost of approximately \$60 000. It is proposed to follow up this work by further shaping of the beach and by the planting of marram grass for stabilisation purposes.

Storm damage to the wall, in particular at its outer end, was repaired at a cost of approximately \$20 000.

St. Helens Berthing Jetties

Construction of two 92 m long finger piers, for the berthing of up to 40 fishing vessels was well advanced at the end of 1983-84. The work was completed in 1984-85 at a total cost of \$437 948.

St. Helens Ablution Block

This facility located adjacent to the new berthing jetties and is principally for the use of fishermen.

Construction was well advanced at the end of 1983-84 and was completed in 1984-85 at a total cost of \$51 000.

As the facility is also available for public use, the Portland Council has accepted responsibility for day to day servicing.



FISHERMEN'S DOCK
Stanley

STRAHAN PORT DEVELOPMENT PLAN

A study was required which would identify possible future facilities for the commercial fishing industry in a plan for the orderly development of the Port of Strahan. Consultants undertook the study at a cost of \$3 500 and completed their report in April 1985. The report is in the process of being assessed.

Ablution Block

Located adjacent to the Strahan Slipway and near the Public Wharf this facility is intended principally for the use of fishermen, but is also available to the public. The Strahan Council has therefore accepted responsibility for the day to day maintenance involved.

Construction commenced late in 1983-84 and was completed in 1984-85 for a total cost of \$84 789 which included sealing of the surrounding hardstand.

Slipway Upgrading

The works, consisting of the provision of two new cradle units, extending and concrete paving of the work area, and the provision of safety racks was well advanced at the end of 1983-84.

Completion was effected in 1984-85 at a total cost of \$69 790.

200 tonne Slipway

The existing Strahan Slipway is limited to vessels not exceeding 80 tonnes displacement. To provide for vessels of up to 200 tonnes displacement, a second slipway is proposed at a previously selected site in Mill Bay, West Strahan.

Consultants were engaged to carry out both a survey of the site and the design. They submitted two preliminary designs with cost estimates for consideration, one design for a conventional slipway for vessels to be slipped bow first, and the other design for vessels to be slipped abeam. The designs are in the process of evaluation.

CHANNEL DREDGING, SPRING BAY, TRIABUNNA

In 1983-84, Consultants were commissioned to carry out a study into dredging a navigation channel to the Charles Street jetties. Their favourable report, dated March 1984 advises that the dredging work can be carried out with confidence that the channel will be serviceable for many years. The channel proposed would be some 1 200 m long, 30 m wide with a 50 m wide swing basin adjacent to the Charles Street jetties, and 2 m minimum depth.

A survey was carried out, along the line of the proposed channel, which confirmed that the excavation would involve dredging and disposal of some 80 000 m³ of silt. A foreshore site was selected and surveyed with the view to the silt being pumped behind containment bunds to form land reclamation areas.

Site investigations and detailed design will proceed with the view to the works possibly going to contract later in 1985-86.

Slipway

Upgrading and rehabilitation works, commenced in 1983-84, were completed in 1984-85 for a total cost of \$202 939.

New steel cradle units, on the central way enable two moderate size vessels to be maintained at the same time. Locally based vessels of larger beam can also be accommodated.

Concrete paving, along either side of the central way, enables scaffolding to be more easily and safely erected.

Safety racks, for the cradle units, were installed along the central way.

It was found necessary to replace the rails on the off-shore way which were then extended by 19 m to provide additional water depth over the outer end.

Two original cradles, of timber construction, were modified for slipping small vessels on either of the two branch ways.

PLANT DIVISION

GENERAL

The Plant Division, which incorporates the workshops at Moonah, Launceston and Ulverstone, provides plant and workshop facilities for the Department's construction and maintenance activities on roads and bridges.

The income from plant hire amounted to \$8 922 169. The amount of hire paid directly to outside owners and contractors amounted to approximately \$14.34 million.

PLANT OPERATIONS

An amount of \$2.187 million was spent on the purchase of new equipment, including the replacement of 1 M 20 size dozer, 7 medium wheeled tractors with front end loaders, manufacture of a portable secondary crusher, 2 machinery floats, 3 ride on mowers and trailers, 4 towed rotary brooms, 1-2 tonne truck mounted slewing crane, 1 caravan for driver instructor, 8-8 m³ tip trucks, medium trucks and light vehicles.

TRAINING AND DRIVER TESTING

During the year 219 people, including 159 from other Departments, were tested and issued with D.M.R. driving permits.

One day defensive driving seminars were held at Moonah, Launceston and Ulverstone with a total attendance of 110.

VEHICLE ACCIDENTS

The frequency of vehicle accidents increased during 1984-85 from 0.33 accidents per 100 000 km to 0.36 in the current year. Personal injury has been negligible and few accidents resulted in major damage.

APPRENTICES

Participation in the Hydro-Electric Commission's training scheme was again made available to first year metal trades apprentices from Moonah, as well as that of the Associated Pulp and Paper Mills for Ulverstone apprentices.

The number of apprentices currently undergoing training in the Department's workshops is fifty one (51) made up as follows:—

Moonah	21
Launceston	18
Ulverstone	12
TOTAL	51

DEPOTS AND WORKSHOPS

The Workshop Production Account recorded an annual turnover of \$6.937 million.

Signs to the value of \$315 285 were manufactured by the Moonah Sign Shop.

Major work carried out during the year, apart from the main function of plant repairs, and miscellaneous steel construction, consisted of the manufacture of a portable secondary crusher. Moonah Workshop also produced 602 tonnes of reinforcing steel.

Workshop Equipment purchased:—

- Lathe—Launceston
- High Pressure Water Cleaning Machine—Launceston
- Bandsaw—Ulverstone
- Reinforcing Steel Bending Machine—Moonah
- M.I.G. Welding Machine—Moonah
- Waste Oil Fired Heater—Moonah
- Threading Machine—Ulverstone
- Wheel Balancer—Moonah

Depot Improvements included:—

- Office and Workshop facilities for signals and radio Section—Moonah Depot
- Heating for Ulverstone Workshops—combustion and kerosene
- Loading ramp improvements for Moonah Depot
- Completion of security fence at North-East Depot Steel Yard

FINANCIAL STATEMENTS

The Plant Division accounting operates within an April to March financial year. The Division trading account is the Road Construction Plant Suspense Account which must be kept as required by section 6 of the Roads and Jetties Act, 1935.

The Road Construction Plant Suspense Account financial statements for the period are reported in Annexure D.

ADMINISTRATION

GENERAL

The Department continues to operate with staffing resources below a satisfactory minimum level in a number of areas. The staff has responded in a commendable manner to all Government initiatives and the ever increasing demands for information and services

STAFF

At 30 June 1985 there were 389 Public Service Act positions and 59 Public Works Construction Act positions on the Department's establishment and the actual number of staff employed was 378 Public Service Act staff and 51 Public Works Construction Act staff.

The composition of this staff was:—

PUBLIC SERVICE ACT STAFF

Administrative Officers, Accounts & Clerical Staff.....	112
Professional Engineers	79
Surveyors	17
Scientific Officers, Technical Officers, Engineering Assistants & Technicians	68
Drafting Officers.....	53
Typists & Other Keyboard Classifications ...	30
Other Classifications	12
Total Public Service Act Staff	371

PUBLIC WORKS CONSTRUCTION ACT STAFF

Survey assistants.....	32
Plan Printers.....	3
Inspectors.....	11
Other Classifications	5
Total Public Works Construction Act Staff ..	51

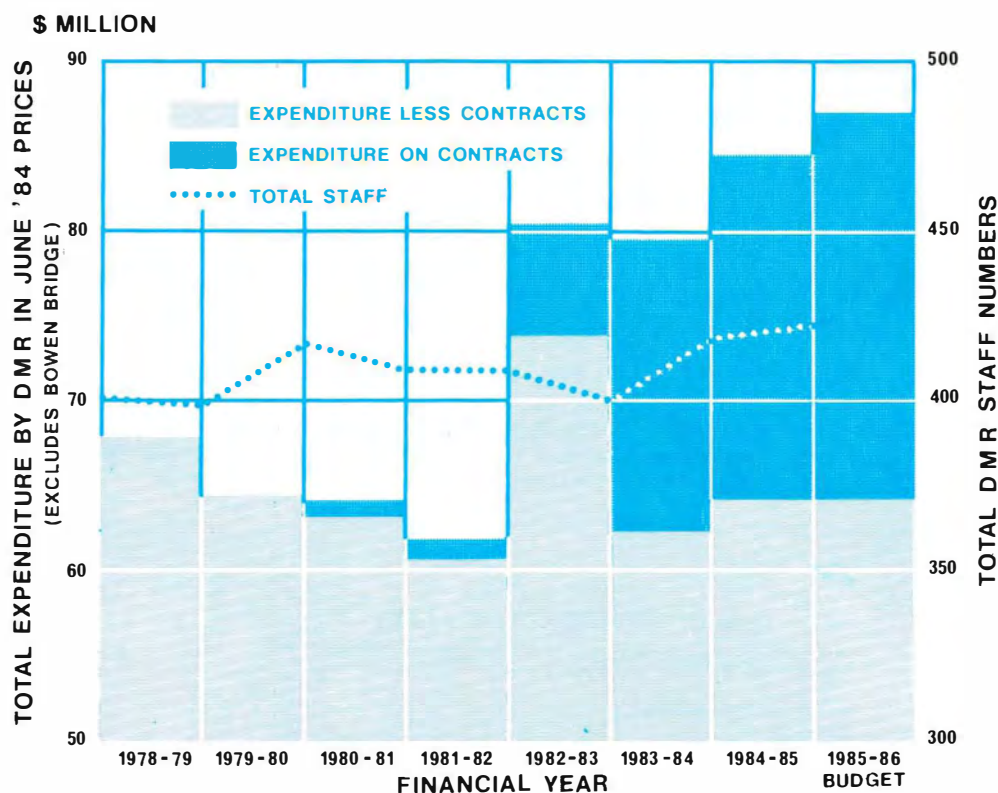
The distribution of staff to the various locations of the Department was as follows:—

PUBLIC SERVICE ACT STAFF

Head Office, Murray Street, Hobart.....	204
South East District Office, Derwent Park	29
North East District Office, Launceston	37
North West District Office, Ulverstone.....	42
Central Workshop & Stores, Moonah	37
Materials and Research Laboratory, Derwent Park	22
TOTAL	371

PUBLIC WORKS CONSTRUCTION ACT STAFF

Head Office, Murray Street, Hobart.....	5
South-East District Office, Derwent.....	12
North-East District Office, Launceston.....	15
North-West District Office, Ulverstone.....	11
Central Workshops & Stores, Moonah.....	5
Materials & Research Laboratory, Derwent Park	3
TOTAL	51



Senior Appointments during the year included:—

- Mr W. D. Coombs was promoted to the position of Assistant Director Design.
- Mr K. A. Ryan was promoted to the position of District Engineer, South East.
- Mr J. R. Davey was promoted to the position of District Surveyor, North East.
- Mr R. C. Sands was promoted to the position of District Surveyor, North West.
- Mr M. J. Partridge was promoted to the position of Executive Officer, North West.
- Mr R. F. Read was promoted to the position of Assistant Director, Administration.
- Mr W. G. Brook was promoted to the position of Manager—Computer Information Services.
- Mr A. R. Hilder was promoted to the position of Registered Surveyor.
- Mr E. Duede was promoted to the position of Registered Surveyor.
- Mr W. I. Nicholson was promoted to the position of Chief Accountant.
- Mr M. B. Gluskie was promoted to the position of Accountant (Costing).
- Mr M. G. Linton was promoted to the position of Assistant Director, Construction.
- Mr J. Giedl was appointed to the position of Geologist.

The following Long Serving Officers Retired, resigned or died during the year:—

Mr D. A. P. Bannerman, Administrative Officer, Personnel—28 years
 Mr F. J. Drake, Chief Accountant (Deceased)—32 years
 Mr E. J. Bradford, Engineer—43 years
 Mr K. G. Rasmussen, Secretary—42 years
 Mr C. Morgan, Executive Officer—44 years
 Mr G. A. E. Wilson, Section Storeman—16 years
 Miss S. R. Lawson, Machinist—28 years
 Mr D. L. Burrige, Chief Drafting Officer—44 years
 Mr R. W. Hopkins, Surveyor—25 years

STUDY COURSES AND STAFF DEVELOPMENT PROGRAM

Including those officers studying work-related subjects in tertiary establishments there is a total of twenty five persons receiving time off for study purposes.

There are no persons currently holding a University Scholarship

INDUSTRIAL

Wages increased in line with C.P.I., however, a significant move towards site allowances emerged with the granting of site allowances on the Link Roads—Cradle Mountain to Que River, Guildford to Hampshire, Burnie Bypass, Lake Highway and Falmouth to Chain of Lagoons projects. No doubt site allowances will become more prevalent.

As at 30 June 1985 the number of employees engaged in workshop and field operations were:—

Workshops & Depots	228
Construction & Maintenance of Roads and Bridges	927
TOTAL	1 155

Retirements for the year totalled 32, and a number of these served the Department for many years.

Retirements due to Age—

M. Milos, Plant Operator—35 years
 L. E. Berry, Labourer—34 years
 A. R. Palmer, Driver—32 years
 J. J. Foley, Transport Foreman—31 years
 W. C. Blowes, 2 second Class Machinist—31 years
 D. Holland, Plant Operator—29 Years
 F. G. Joseph, Labourer—26 years
 A. G. Coppleman, Foreman—23 years

Retirements due to Ill-Health—

H. S. Miller, Foreman—40 years
 G. V. Cooper, Labourer—32 years
 S. S. White, Plant Operator—27 years
 T. A. Williams, Field Clerical Assistant—27 years
 *A. P. Brown, Traffic Controller—26 years
 *R. G. Brewer, Labourer—20 years

*deceased

WORKERS' COMPENSATION

The cost of and incidence of common law claim resulting from accidents continues to escalate.

The following payments under the Workers' Compensation Act were made during the year:—

Weekly Payments	192 079.72
Medical Expenses	106 772.58
Lump Sum Settlements	82 566.00
TOTAL	\$381 418 .30

INDUSTRIAL SAFETY

The increased works program of the Department is reflected in the monthly average number of employees which rose from 1 433 in 1983-84 to 1 557 in 1984-85. The increase was largely due to contracts won by the Department and this has posed considerable difficulty in co-ordinating adequate safety training. The increase in lost time accidents from 166 in 1983-84 to 185 during 1984-85 may have been partly due to this problem.

Safety training has been conducted during the year covering first aid, crane chasers, shot firers, and scaffolding and the maintenance and operation of chain saws. All new first-year apprentices were given a two day course in industrial safety and a seminar was organised for sealing gang employees on the operation and use of L.P. gas.

Two safety awards were given during the year for twelve month periods free of 'Lost Time Injury'. One to a bridge gang in the South-East and another to a similar gang in North-east.

PROPERTY ACQUISITIONS

During 1984-85 199 acquisitions were completed, 203 were commenced and, at the end of the financial year, 305 acquisitions were in progress. One hundred and forty-three of the acquisitions in progress were subject to compulsory process compared with ninety-eight at the end of the previous year. Expenditure on property acquisitions for the year was \$4 311 453 compared with \$5 867 711 for the preceding year. Included in this total was an amount of \$1 668 427 for National Highway Projects.

The major areas of expenditure included the purchase of properties affected by the construction of the Midland Highway, Tasman Highway Extension to Davey Street (including the relocation of Retlas Bronze), Launceston Southern Outlet, Prospect Bypass, Deloraine Bypass, Burnie Expressway and the Bass Highway (Don Hill to Ulverstone). Many minor property acquisitions resulted from the reconstruction of the Huon Highway, Lyell Highway, Tasman Highway, West Tamar Highway and Lilydale Main Road.

CONTRACTS

The following contracts were entered into during 1984-85 (including building demolitions and sub-contracts):—

<i>Contract No.</i>	<i>Description</i>	<i>Contract Price</i>
		\$
B-A/B-046	Kingston Interchange Underpass, Hobart Southern Outlet Road	402 321.00
B-N/B-059	Gunn Street Footbridge, Midland Highway, Bridgewater	154 047.00
B-N/R-068	View Road to High Street, Bass Highway, Burnie Stage B	1 824 908.00
B-N/R-069	Midland Highway, Bridgewater Bypass, Landscaping	68 615.60
B-N/R-078	North Terrace, Landscaping	6 992.29
B-N/R-082	Bass Highway, Burnie, Stage B, High Street to North Terrace, Roadworks	1 523 291.87
R-N/R-083	East Tamar Highway, Re-alignment at Williams Creek	625 142.14
B-A/B-086	Kingston Subway, Hobart Southern Outlet Road	54 381.00
B-N/R-087	Midland Highway, Bridgewater Bypass, Supply of Road Signs and Fittings	10 773.00
R-N/R-089	Launceston Southern Outlet, Strathroy to Breadalbane, Road Construction	3 779 246.00
RB-NA/R-091	Supply of Road Signs and Fittings RGA and ABRD Funded Projects	18 140.00
B-A/R-093	Launceston Southern Outlet, Glen Dhu Service Roads	1 249 187.10
B-A/R-094	Hobart Southern Outlet, Extension to Summerleas Road Stage 1, Roadworks	907 129.62
R-N/B-097	Claytons Rivulet Culvert, Bass Highway, Manufacture and Supply of Precast Crown Units etc.	151 605.00
R-N/R-099	Midland Highway, Oatlands Bypass, Landscaping	35 628.85
R-N/B-100	Bass Highway, Claytons Rivulet Culvert and Associated Service Alterations	649 393.51
R/SE-401	Huon Outlet, Sandfly to Vines Saddle, Asphalt Surfacing	520 837.30
B-N/R-1009	Midland Highway, Bridgewater Bypass, Asphalt Surfacing	234 214.00
R-A/R-1012	Huon Outlet Road, Kerb and Channel	61 844.00
R-S/E-1014	Lyell Highway, Granton to Sorell Creek, Supply and Lay Asphalt for Pavement Shape Correction	60 120.00
R-S/E-1015	Grass Tree Hill Secondary Road, Shones Corner to Risdon Vale, Asphalt Overlay	98 344.10
R-S/E-1016	Tasman Highway, Mornington to Tunnel Hill, Asphalt Overlay	174 776.20
R-S/E-1017	Hobart Southern Outlet Road, Proctors Road Interchange, Supply and Lay Asphalt ..	113 255.00
R-N/M-1018	Midlands Highway, Paving at Bagdad	108 116.00
R-N/M-3023	Bass Highway, Middle Road to Don, Supply and Lay Asphalt	195 360.00
R-A/M-3024	Bass Highway, Wynyard Bypass, Supply and Lay Asphalt	58 500.00
R-A/M-3025	Murchison Highway, Hellyer Gorge, Supply and Lay Asphalt	58 575.00
B-A/R-3027	Mole Creek Main Road, Deloraine to Needles, Prime and Seal new Pavement	152 076.00

AGREEMENTS

Contracts below \$20 000 in value (\$30 000 for bituminous works) are usually the subject of a simplified form of contract termed 'agreements'. The following agreements were entered into during 1984-85:—

	<i>Bridges</i>	<i>Sealing</i>	<i>Gravel</i>	<i>Others</i>	<i>Total</i>
North-West District .....	....	26	26	10	62
North-East District .....	....	4	14	40	58
South-East District .....	....	11	16	32	59
Head Office	9	1	2	20	32
Total	9	42	58	102	211

STORES

The construction and plant stores requirements of the Department, managed through a decentralised stores system, with a principal store at the main workshop complex at Moonah and major stores at the District Offices in Launceston and Ulverstone were approximately \$2.3m. The opening value of stores holdings was \$1 029 972 and the closing value on 30 June 1985 was \$1 048 921.

Period contract orders placed totalled 8 542. As well priced/availability checks for over 6 500 items were made.

ACKNOWLEDGEMENT

The efforts of the staff and employees required to undertake successfully the record works program during the 1984-85 financial year were most demanding and on behalf of the then Director, Mr L. J. Baily, I wish to express my appreciation to all who were involved.

All members of the Department's work force are entitled to be proud of their achievements in the past year should share in the favourable public comment being made on the improvements to the road system which have been constructed.

P. J. WETTENHALL, *Acting Director of Main Roads*

ANNEXURE A **LOAN FUND EXPENDITURE 1984-85**

1983-84 \$		1984-85 \$
ROADS AND BRIDGES—		
....	Coles Bay Tourist Road	900 000
....	Flagstaff Gully Link Road	207 200
....	Glenorchy bypass	297 227
....	Guildford to Hampshire Link Road	1 558 771
414 215	Hobart Southern Outlet	1 617 039
1 149 000	Huon Highway	1 429 215
1 297 080	Huon Outlet Road	3 290 410
....	Lake Highway	684 360
....	Que River to Learys Corner Link Road	2 249 410
....	Smithton—Zeehan Road	217 737
300 000	Tasman Highway	1 741 788
1 100 000	Henty Main Road	1 463 670
416 000	Illawarra Main Road .....	....
320 000	Refund to Consolidated Revenue for Administration	1 000 000
4 996 295	Total (Roads and Bridges)	16 656 827
OTHER WORKS—		
282 171	Launceston Flood Protection Scheme	53 161
250 000	Jetties and facilities for fishermen	185 045
53 705	Bruny Island Ferry Terminals—Construction	53 173
1 000 000	Upgrading of Fishing Ports	1 155 488
1 585 876	Total (Other Works)	1 446 867
\$6 582 171	TOTAL (All Works)	\$18 103 694

ANNEXURE B **FINANCIAL ASSISTANCE TO LOCAL GOVERNMENT AUTHORITIES**

1983-84 \$		1984-85 \$
DIRECT GRANTS—		
Arterial Roads—		
835 224	Construction	1 156 245
....	Maintenance .....	....
Local Roads—		
6 906 702	Construction	6 125 055
2 953 392	Maintenance	2 772 536
10 695 318	Total	10 053 836
Works on Council Roads Financed and Carried out by D.M.R.—		
2 358 998	Repair and Renewal of Bridges	2 407 072
224 130	Roadworks	473 923
\$13 278 446	TOTAL	\$12 934 831

ANNEXURE C **BITUMINOUS SURFACING COMPLETED 1984-85 (km)**

<i>Hot Bitumen Sprayed Seal</i>						
<i>Road</i>	<i>Prime and Seal</i>	<i>Primer Seal</i>	<i>Winter Seal</i>	<i>Flush Reseal</i>	<i>Asphalt</i>	<i>Total</i>
SOUTH-EAST DISTRICT—						
Arthur Highway .....	....	2.38	....	3.91	6.29	....
Channel Highway .....	....	....	....	4.14	4.14	....
East Derwent Highway .....	....	....	....	2.20	2.20	....
Huon Highway .....	....	1.82	....	4.67	6.49	....
Hobart Northern Outlet .....	....	....	....	0.66	0.66	....
Lake Highway	4.18	....	....	....	4.18	....
Lyell Highway .....	....	7.13	....	9.18	16.31	....
Midland Highway	6.00	....	....	10.35	8.79	25.14
Southern Outlet Road .....	....	....	....	....	0.20	0.20
Tasman Highway .....	....	....	....	5.52	4.12	9.64
Bruny Main Road	2.83	....	....	....	2.83	....
Colebrook Main Road	0.84	....	....	....	0.84	....
Fenton Main Road .....	....	0.54	....	....	0.54	....
Lymington Main Road .....	....	....	....	4.05	4.05	....
Grass Tree Hill Secondary Road .....	....	....	....	....	1.47	1.47
Nubeena Secondary Road .....	....	....	....	4.93	4.93	....
Sandfly Secondary Road .....	....	....	....	2.00	2.00	....
South Arm Secondary Road .....	....	....	....	2.72	2.72	....
Hastings Caves Tourist Road .....	....	....	....	0.55	0.55	....

ANNEXURE C
BITUMINOUS SURFACING COMPLETED 1984-85 (km)

	Hot Bitumen Sprayed Seal					
Road	Prime and Seal	Primer Seal	Winter Seal	Flush Reseal	Asphalt	Total
NORTH-WEST DISTRICT—						
Bass Highway	6.20	....	....	8.00	5.70	19.90
Lake Highway .....	....	....	....	1.30	1.30	....
Lyell Highway .....	....	....	....	20.59	20.59	....
Murchison Highway .....	....	0.30	....	2.90	1.50	4.70
Zeehan Highway .....	....	....	....	5.28	5.28	....
Forth Main Road .....	....	....	....	4.58	4.58	....
Henty Main Road	19.20	....	....	....	19.20	....
King Island Main Road .....	....	....	....	3.75	3.75	....
Natone Main Road .....	....	....	....	11.27	11.27	....
Pine Main Road .....	....	....	....	4.60	4.60	....
Railton Main Road .....	....	....	....	4.86	4.86	....
Cradle Mountain Tourist Road	3.28	....	....	....	3.28	....
NORTH-EAST DISTRICT—						
Bass Highway .....	....	....	....	7.94	1.78	9.72
East Tamar Highway .....	....	....	....	0.89	1.33	2.22
Midland Highway .....	....	....	....	....	0.90	0.90
Tasman Highway .....	....	....	2.94	....	2.47	5.41
West Tamar Highway	3.84	....	....	....	1.11	4.95
Bridport Main Road .....	....	....	....	2.63	2.63	....
Esk Main Road .....	....	....	....	21.02	21.02	....
Illawarra Main Road .....	....	....	....	....	0.80	0.80
Lake Leake Main Road	6.00	....	....	....	6.00	....
Lilydale Main Road	2.88	....	....	....	1.60	4.48
Pateena Main Road .....	....	....	....	7.17	1.70	8.87
Poatina Main Road .....	....	....	0.91	6.51	6.63	14.05
Leighlands Secondary Road .....	....	....	....	4.27	4.27	....
Mathinna Secondary Road .....	....	....	4.11	1.59	5.70	....
Pipers River Secondary Road .....	....	....	....	....	2.71	2.71
Rossarden Secondary Road .....	....	....	....	6.89	6.89	....
Coles Bay Tourist Road	5.00	....	....	....	5.00	....
Notley Gorge Tourist Road .....	....	....	....	5.37	5.37	....
TOTALS	60.25	12.17	7.96	186.29	42.81	309.48

In addition to the above the following works were also carried out by the Department on classified and unclassified roads. In some cases because of various pavement widths, junction areas etc., quantities are shown rather than lengths.

Bass Highway—Sulphur Creek	9 470 square metres Primer Seal
Launceston Southern Outlet	6 kms Asphalt
Launceston Southern Outlet	25 993 square metre Flush Reseal
Tasman Highway—Maclaines Bridge	252 tonnes Asphalt
Huon Outlet Road	3.2 kms Asphalt
Algona Main Road	2.82 kms Asphalt (by Contract)
Illawarra Main Road	684 tonnes Asphalt
Heemskirk Road	20 kms Prime and Seal (for H.E.C.)

ANNEXURE D
ROAD CONSTRUCTION PLANT SUSPENSE ACCOUNT 1984-85
Income and Expenditure Statement

Period Ending 17.3.84 \$		Period Ending 16.3.85 \$
Income—		
Earnings—		
9 856 145	Plant Hire	8 922 169
6 065 648	Workshop Charges	7 003 431
109 041	Other Income	166 417
159 473	Net Profit on Sale of Plant and Stores and Stocktaking Adjustments	164 370
<u>16 190 307</u>	TOTAL	<u>16 256 387</u>
Expenditure—		
7 031 578	Plant Operation and Maintenance	7 568 114
5 706 399	Workshop Operations	6 258 418
1 639 129	Plant Depot Administration and Maintenance	1 857 444
1 020 307	Provision for Depreciation of Plant, Equipment and Buildings	1 165 987
31 000	Provision for Insurance	18 318
15 428 413		16 868 281
<u>761 894</u>	Excess of Income over Expenditure for Period	<u>611 894</u>
\$16 190 307	TOTAL	\$16 256 387

ANNEXURE D
ROAD CONSTRUCTION PLANT SUSPENSE ACCOUNT 1983-84

Balance Sheet as at 16 March 1985

1984 \$		1985 \$
	NATURE AND SOURCE OF FUNDS USED—	
	Funds provided by State Treasurer—	
194 607	Valuation of Plant and Equipment held at 30 June 1945 and Stock on Hand held at 30 June 1946	194 607
3 140 730	Loan Funds	3 140 730
6 769	Commonwealth Grant	6 769
326 897	State Highways Trust Fund	326 897
2 712 803	General Reserve for Increased Cost of Plant Replacement	3 494 672
2 426 297	Accumulation Account	1 032 535
	Current Liabilities—	
420 030	Accrued Expenses	722 645
	Provisions—	
10 073	Motor Vehicle Insurance .....	....
10 624	Plant Accident Insurance	5 815
<u>9 248 830</u>		<u>8 924 670</u>
	THESE FUNDS ARE REPRESENTED BY—	
	Current Assets—	
468 548	Cash at Treasury	375 718
122 309	Work in Progress—Deferred Charges	120 626
1 761 567	Accrued Charges—Plant Hire	691 530
493 249	Workshops	560 957
654	Apprenticeship Tool Kits	6 349
<u>2 846 327</u>		<u>1 755 180</u>
	Fixed Assets—	
16 763 338	Land, Buildings, Plant and Equipment at Cost	18 170 887
<u>(10 360 835)</u>	Less Provision for Depreciation	<u>(11 001 397)</u>
<u>\$9 248 830</u>		<u>\$8 924 670</u>

STATEMENT OF SOURCE AND APPLICATION OF FUNDS

1984 \$		1985 \$
	Source of Funds—	
761 894	Profit from Operations .....	....
<u>1 020 307</u>	Add Non-Cash Item Depreciation	<u>1 165 987</u>
1 782 201		1 165 987
<u>105 982</u>	Less Profit on Sale of Plant Less Costs	<u>164 370</u>
1 676 219		1 001 617
....	Decrease in Working Capital	1 393 762
6 568	Increase in Plant Accident Insurance Provision .....	....
<u>363 457</u>	Proceeds from Sale of Plant	<u>553 869</u>
<u>2 046 244</u>		<u>2 949 248</u>
	Application of Funds—	
....	Loss from Operations	611 893
613 880	Increase in Working Capital .....	....
....	Decrease in Plant Accident Insurance Provision	4 809
352	Decrease in Motor Vehicle Insurance Provision	10 073
47 968	Improvements to Depots	29 735
84 631	Purchase of New Plant	481 185
<u>1 275 453</u>	Purchase of Replacement Plant	<u>1 711 264</u>
23 960	Purchase of Workshop Equipment and Tools	100 289
<u>\$2 046 244</u>		<u>\$2 949 248</u>

ANNEXURE E
DETAILS OF CLASSIFIED ROADS BY LENGTH AND SURFACE TYPE
(See Map Included)

	<i>Length in Kilometres</i>		
	<i>Sealed</i>	<i>Unsealed</i>	<i>Total</i>
Highways	1 859.22	92.21	1 951.43
Subsidiary Roads—			
Main Roads	1 198.01	84.14	1 282.15
Secondary Roads	238.00	42.84	280.84
Developmental Roads	20.68	24.68	45.36
Tourist Roads	90.85	80.95	171.80
Total Classified Roads	3 406.76	324.82	3 731.58



DEPARTMENT OF MAIN ROADS
TASMANIA

CLASSIFIED ROAD SYSTEM



A. B. CAUDELL, Government Printer, Tasmania

